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DATA REPORT

SPRAY DEPOSIT SUMMARY NORTHERN REGION
1976 Pilot Project to
Evaluate Dylox and Orthene for Controlling Western Spruce Budworm

John W. Barry
William M. Ciesla
Ray Luebbe
Lynne Whitcombe
Robert W. Young

Used:

Bell 205
Beeconomist
90 mph
50' release
200' swath

October 1976

U.S. Department of Agriculture
Forest Service
Forest Insect and Disease Management
Methods Application Group
Davis, CA 95616

United States
Department of
Agriculture



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PREFACE

The analysis provided in this report was performed by USFS Methods Application Group at the request of R-1. The analysis is limited to that related to spray deposition.

The spray deposit Kromekote cards were analysed on the Quantimet image analyser by personnel at Los Alamos Scientific Laboratory, New Mexico. The resulting numbers were run through the U.S. Army ASCAS by MAG at Davis, California. The computer output provided drop size, drop number, and mass deposit data.

This report will provide input to the Final R-1 project report.

Appreciation is extended to Mr. Kaye Johnson and Jim Lehmann of Los Alamos Scientific Laboratory for the deposit card counting and to Robert Ekblad for coordinating.

OBJECTIVE

The objective of the spray deposit sampling was to monitor the overall spray coverage both qualitatively and quantitatively and to investigate correlations of spray deposition to mortality.

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ABSTRACT

A pilot project was conducted by USFS, R-1 to evaluate Dylox 4 and Orthene 75S for control of the western spruce budworm, Choristoneura occidentalis, Freeman.

There was a significant correlation between spray deposit and insect mortality. The vmd of the spray for the Dylox trials was 140 μm and the drop recovery beneath the sample trees was 10 per cm^2 . The vmd for Orthene was 236 μm and 12 drops per cm^2 were recovered beneath the sample trees.

INTRODUCTION

This report presents the results of the spray deposit sampling performed during the R-1 Pilot Project, 1976, with Dylox and Orthene. The project was conducted on the Helena National Forest during July 1976 to evaluate the two chemicals for control of the western spruce budworm, Choristoneura occidentalis Freeman.

Six blocks approximately 1000 acres in size were sprayed, three with Dylox 4 at the rate of 0.5 gallons per acre and three with Orthene 75S at the rate of 1.0 gallons per acre. The first trial was conducted on July 3, 1976 and the last trial was sprayed July 9, 1976. Both chemicals were applied at one pound of active ingredient per acre. Blocks 1, 2, and 7 were sprayed with Dylox and Blocks 3, 5, and 8 were sprayed with Orthene.

Application was made with a Bell 205 helicopter spraying 50 feet above the trees and swath widths of 200 feet. The helicopter was calibrated to apply the chemicals at a forward speed of ⁹⁰~~80~~ mph and swaths of 200 feet. Beecomist spray devices were used on all trials.

METHOD

Spray deposit sampling was accomplished with standard USFS Kromekote cards. The cards, measuring 16.9 X 11 centimeters, were placed in the MEDC card holder and positioned on the ground at the sampling locations.

Card sampling positions included both open and beneath biological sample trees.

The open sampling positions consisted of approximately 50 cards placed along roads or trails. Data obtained from these cards represents the structure of the spray before it was interrupted and scavenged by the forest. Open area sampling lines were designated as follows:

- a. Cards along stream (W)
- b. Cards along trails and roads (L,M,N)

The sample tree sampling consisted of placing 4 deposit cards at the drip line of each sample tree one at each cardinal position. The ground was cleared of all vegetation to insure that there was no shading or shielding of the deposit card.

The cards were placed in the field by the field crew personnel the morning of the spray and picked up approximately four hours after spraying.

RESULTS

The results of the analysis consists of the following data:

- a. Deposition data summarized by spray block (Tables 1,2,3).
- b. Percent spray recovery as a function of application rate.
- c. Insect mortality vs. spray deposit graphs both by spray block and by chemical treatment.
- d. Estimates of quality of chemical application.
- e. Canopy penetration plots of spray droplets as a function of droplet size.

Spray deposition data which includes volume median diameters, drop recovery and mass recovery as a function of amount disseminated are provided in Tables 1,2, and 3.

A higher percent of the Orthene spray was recovered as compared to Dylox.

The mortality response curves for Orthene reflect a difference in mortality between the 3 day post spray sampling and the 10 day post sampling. A higher mortality occurred after 10 days as compared to 3 days with Orthene. This is attributed to the residual action of Orthene. The Dylox graphs do not reflect this pattern. It is also

worthy of note that it required less Orthene (drops/cm² and mass) to cause a 90% mortality.

Through analysis of the spray deposit vs. insect mortality graphs it was possible to conclude that there is residual chemical activity at least 9 days after spraying of Orthene.

A higher percent recovery of the spray was observed with Orthene as compared to Dylox. This may be attributed to evaporation and/or drift as the droplet size of the Dylox spray was lower than Orthene.

Based upon the insect responses shown on the deposit/mortality graphs, the quality of spray application was poor on Blocks 2 and 7, both Dylox blocks, and better on the Orthene blocks.

Table 1. - Summary of volume median diameter (vmd) and drops per cm², R-1 Pilot Project 1976.

Block	Chemical	Card Identifier	Application Rate	VMD (μ m)		Drops/cm ²		Total Sample Cards
				Trees	Open	Trees	Open	
1	Dylox	TREE	0.5 GPA	147	--	13	--	281
		Open			151		24	50
2	Dylox	TREE	0.5 GPA	127	--	10	--	280
		Open W		--	139	--	23	6
		Open M		--	76	--	16	50
		Open L		--	117	--	17	28
7	Dylox	TREE	0.5 GPA	146	--	8	--	286
			(NO OPEN CARDS)					
3	Orthene	TREE	1.0 GPA	259	--	11	--	298
		Open L		--	260	--	11	47
		Open W		--	272	--	18	10
		Open M&N		--	289	--	23	69
5	Orthene	TREE	1.0 GPA	229	--	10	--	300
		Open W		--	194	--	9	3
8	Orthene	TREE	1.0 GPA	221	--	14	--	--
		Open M		--	220	--	19	27
		Open L		--	267	--	20	50
		Open W		--	238	--	27	7
		Open N		--	216	--	20	24

Table 2. - Summary of spray recovery in gallons per acre and recovery as per cent of material applied, R-1 Pilot Project 1976

Block	Chemical	Card Identifier	Application Rate	Gallons/Acre		Spray Recovery		Total Sample Cards
				Trees	Open	Trees	Open	
1	Dylox	TREE	0.5 GPA	.06	-	12%	-	281
		OPEN		-	.14	-	28%	50
2	Dylox	TREE	0.5 GPA	.03	-	6%	-	280
		Open W		-	.08	-	16%	6
		Open M		-	.02	-	4%	50
		Open L		-	.05	-	10%	28
7	Dylox	TREE	0.5 GPA	.04	-	8%	-	286
			(NO OPEN CARDS)					
3	Orthene	TREE	1.0 GPA	.35	-	35%	-	298
		Open L		-	.38	-	38%	47
		Open W		-	.94	-	94%	10
		Open M&N		-	1.02	-	102%	69
5	Orthene	TREE	1.0 GPA	.26	-	26%	-	300
		Open W		-	.18	-	18%	3
8	Orthene	TREE	1.0 GPA	.36	-	36%	-	-
		Open M		-	.59	-	59%	27
		Open L		-	.95	-	95%	50
		Open W		-	.91	-	91%	7
		Open N		-	.54	-	54%	24

Table 3 Results Summary of Spray Deposit Data by Chemical

Tree Cards				Open Cards		
Chemical	VMD	Drops/cm ²	Spray Recovery	VMD	Drops/cm ²	Spray Recovery
Dylox 4	140µm	10	9%	121µm	20	15%
Orthene 75S	236µm	12	32%	245µm	18	69%

Table 4 - Relative spray deposition observed by
sample tree clusters, Block 1, Dylox.

Block	Tree Cluster	Quantitative Spray Deposition (Drops/cm ²)			
		0 Negative	1-7 Light	8-19 Medium	20-28 Heavy
1	1			X	
	2			X	
	3				X
	4			X	
	5				X
	6			X	
	7			X	
	8		X		
	9				X
	10				X
	11			X	
	12			X	
	13		X		
	14			X	
	15		X		
	16			X	
	17		X		
	18			X	
	19			X	
	20		X		
	21			X	
	22	X			
	23			X	
	24		X		
	25				X

Table 5 - Relative spray deposition observed by
sample tree clusters, Block 2, Dylox.

Block	Tree Cluster	Quantitative Spray Deposition (Drops/cm2)			
		0 Negative	1-7 Light	8-19 Medium	20-28 Heavy
2	26				X
	27				X
	28		X		
	29			X	
	30			X	
	31			X	
	32			X	
	33			X	
	34		X		
	35		X		
	36		X		
	37		X		
	38			X	
	39			X	
	40			X	
	41		X		
	42			X	
	43			X	
	44			X	
	45		X		
	46		X		
	47		X		
	48		X		
	49		X		
	50			X	

Table 6 - Relative spray deposition observed by
sample tree clusters, Block 3, Orthene.

Block	Tree Cluster	Quantitative Spray Deposition (Drops/cm2)			
		0 Negative	1-7 Light	8-19 Medium	20-28 Heavy
3	51		X		
	52			X	
	53		X		
	54			X	
	55			X	
	56		X		
	57			X	
	58			X	
	59			X	
	60				X
	61			X	
	62			X	
	63			X	
	64				X
	65			X	
	66			X	
	67		X		
	68		X		
	69		X		
	70		X		
	71			X	
	72			X	
	73			X	
	74		X		
	75			X	

Table 7 - Relative spray deposition observed by
sample tree clusters, Block 5, Orthene.

Block	Tree Cluster	Quantitative Spray Deposition (Drops/cm ²)			
		0 Negative	1-7 Light	8-19 Medium	20-28 Heavy
5	101			X	
	102			X	
	103			X	
	104			X	
	105			X	
	106			X	
	107			X	
	108			X	
	109			X	
	110		X		
	111		X		
	112		X		
	113		X		
	114			X	
	115			X	
	116		X		
	117			X	
	118		X		
	119			X	
	120		X		
	121			X	
	122			X	
	123			X	
	124		X		
	125			X	

Table 8 - Relative spray deposition observed by
sample tree clusters, Block 7, Dylox.

Block	Tree Cluster	Quantitative Spray Deposition (Drops/cm2)			
		0 Negative	1-7 Light	8-19 Medium	20-28 Heavy
7	151		X		
	152		X		
	153			X	
	154			X	
	155				X
	156			X	
	157				X
	158			X	
	159			X	
	160		X		
	161		X		
	162		X		
	163		Only 2 Cards		
	164		X		
	165		X		
	166		X		
	167		X		
	168		X		
	169		X		
	170		X		
	171			X	
	172		X		
	173		X		
	174		X		
	175			X	

Table 9 - Relative spray deposition observed by
sample tree clusters, Block 8, Orthene

Block	Tree Cluster	Quantitative Spray Deposition (Drops/cm ²)			
		0 Negative	1-7 Light	8-19 Medium	20-45 Heavy
8	176				X
	177			X	
	178		X		
	179			X	
	180			X	
	181		X		
	182				X
	183		X		
	184		X		
	185		X		
	186	X			
	187		X		
	188				X
	189			X	
	190		X		
	191			X	
	192			X	
	193				X
	194				X
	195			X	
	196				X
	197			X	
	198		X		
	199			X	
	200				X

Table 10 1976 Montana Pilot Project, Block 1, Dylox,
Mortality and Spray Deposit Data by Cluster

Cluster	Unadjusted Mortality		Mass	²	
	3 Day	10 Day	Gallons/Acre	Drops/cm	VMD
1	.858	.973	.10	14	151
2	.653	.848	.09	16	127
3	.930	.966	.10	29	130
4	.858	.903	.04	16	119
5	.710	.810	.07	23	121
6	.804	.944	.08	12	156
7	.765	.803	.01	9	60
8	.814	.961	.01	6	78
9	.819	.917	.07	20	121
10	.920	.969	.16	28	154
11	.665	.894	.02	17	81
12	.553	.576	.03	11	86
13	.555	.795	.02	7	113
14	.899	.890	.06	12	142
15	.756	.610	.13	7	198
16	.561	.701	.06	9	157
17	.675	.591	.05	7	166
18	.626	.776	.07	8	148
19	.768	.875	.11	13	169
20	.651	.776	.03	4	166
21	.764	.726	.05	10	148
22	.000	.486	.00	<1	54
23	.285	.431	.09	10	160
24	.371	.577	.01	2	180
25	.973	1.000	.12	20	143

Table 11 1976 Montana Pilot Project, Block 2, Dylox,
Mortality and Spray Deposit Data by Cluster

Cluster	Unadjusted Mortality		Mass Gallons Per Acre	Drops/cm ²	VMD ¹
	3 Day	10 Day			
26	.987	.990	.10	27	
27	.986	.976	.14	20	
28	.965	.978	.04	6	
29	.967	.995	.03	9	
30	.974	.988	.04	9	
31	.885	.942	.02	10	
32	.977	.955	.04	18	
33	.352	.637	.05	12	
34	.859	.943	.02	6	
35	.721	.775	.01	4	
36	.827	.842	.01	3	
37	.867	.938	.02	6	
38	.664	.858	.03	12	
39	.793	.925	.02	10	
40	.841	.667	.03	15	
41	.703	.815	.01	5	
42	.843	.929	.06	12	
43	.962	.973	.06	15	
44	.886	.932	.04	12	
45	.876	.809	.01	5	
46	.845	.866	.01	3	
47	.872	.863	.04	7	
48	.265	.512	.02	3	
49	.643	.811	.01	2	
50	.843	.956	.03	13	

1 VMD's were not calculated by cluster for this block.

Table 12 1976 Montana Pilot Project, Block 3, Orthene
Mortality and Spray Deposit Data by Cluster

Cluster	Unadjusted Mortality		Mass Gallons/Acre	Drops/cm ²	VMD
	3 Day	10 Day			
51	.921	.994	.21	6	239
52	.967	1.000	.36	10	241
53	.715	.971	.06	4	172
54	.985	1.000	.50	14	285
55	.990	1.000	.64	11	304
56	.983	.985	.25	6	258
57	.896	.985	.27	9	228
58	.989	.968	.56	18	231
59	.987	1.000	.26	11	225
60	.995	1.000	1.12	22	282
61	.959	.975	.23	8	242
62	.955	1.000	.55	13	298
63	.972	.990	.23	13	217
64	.984	1.000	.95	26	253
65	.856	.969	.45	10	303
66	.942	.961	.16	12	161
67	.905	.987	.42	5	337
68	.817	.943	.08	6	162
69	.778	.765	.05	4	161
70	.720	.932	.08	4	297
71	.922	.957	.24	10	236
72	.698	.920	.10	7	167
73	.982	.997	.65	18	250
74	.800	.939	.14	4	242
75	1.000	1.000	.76	18	277

Table 13 1976 Montana Pilot Project, Block 5, Orthene
Mortality and Spray Deposit Data by Cluster

Cluster	Unadjusted Mortality		Mass Gallons/Acre	Drops/cm ²	VMD ¹
	3 Day	10 Day			
101	.988	1.000	.49	14	
102	.776	.910	.22	15	
103	.914	.992	.52	12	
104	.915	.985	.13	8	
105	.996	1.000	.41	16	
106	.713	.884	.16	18	
107	.852	.978	.10	9	
108	.764	.797	.12	8	
109	.842	.978	.23	12	
110	.150	.703	.09	5	
111	.914	.952	.15	6	
112	.904	.987	.13	6	
113	.654	.793	.02	4	
114	.876	.954	.14	6	
115	.957	.995	.36	8	
116	.737	.892	.15	3	
117	.880	1.000	.46	16	
118	.895	.968	.08	4	
119	.966	1.000	.68	11	
120	.791	.918	.03	3	
121	.934	.976	.29	13	
122	.975	1.000	.51	13	
123	.815	.916	.38	10	
124	.803	.817	.06	6	
125	.935	.991	.78	17	

1 VMD's were not calculated by cluster for this block.

Table 13 1976 Montana Pilot Project, Block 7, Dylox,
Mortality and Spray Deposit Data by Cluster

Cluster	Unadjusted Mortality		Mass	Drops/cm ²	VMD
	3 Day	10 Day	Gallons/Acre		
151	.794	.530	.03	7	126
152	.572	.711	.05	6	159
153	.705	.609	.06	12	138
154	.868	.913	.11	12	187
155	.958	1.000	.16	22	155
156	.869	.757	.05	13	124
157	.921	1.000	.10	21	135
158	.818	.871	.09	11	160
159	.676	.767	.07	16	129
160	.586	.499	.01	4	111
161	.231	.524	.00	1	58
162	.465	.337	.02	7	113
163	.845	.840	--	--	---
164	.717	.735	.03	5	135
165	.141	.332	.01	4	155
166	.435	.378	.02	4	176
167	.661	.677	.02	4	146
168	.362	.510	.02	7	123
169	.111	.212	.00	2	56
170	.662	.683	.04	5	160
171	.721	.709	.04	10	119
172	.289	.324	.00	2	77
173	.650	.474	.00	2	68
174	.383	.594	.00	3	76
175	.933	.803	.08	14	134

Table 14 1976 Montana Pilot Project, Block 8, Orthene
Mortality and Spray Deposit Data by Cluster

Cluster	Unadjusted Mortality		Mass	Drops/cm ²	VMD
	3 Day	10 Day	Gallons/Acre		
176	.972	.976	.52	24	203
177	.874	.853	.14	10	170
178	.816	.914	.13	3	268
179	.897	.935	.50	18	208
180	.849	.961	.31	8	238
181	.860	.874	.37	7	276
182	1.000	1.000	1.15	45	209
183	.928	.950	.17	5	270
184	.222	.379	.01	2	150
185	.000	.000	.02	2	197
186	.000	.185	.00	0	91
187	.815	.854	.12	4	243
188	.905	1.000	.48	21	200
189	.912	1.000	.44	18	209
190	.871	.938	.12	7	202
191	.941	1.000	.38	17	207
192	.941	.974	.42	18	219
193	.944	.993	.57	28	197
194	.959	.967	.29	20	167
195	.903	1.000	.30	14	216
196	.975	1.000	1.10	22	261
197	.970	.966	.34	13	243
198	.944	.969	.17	5	280
199	.931	.950	.29	16	182
200	.960	.947	.68	22	233

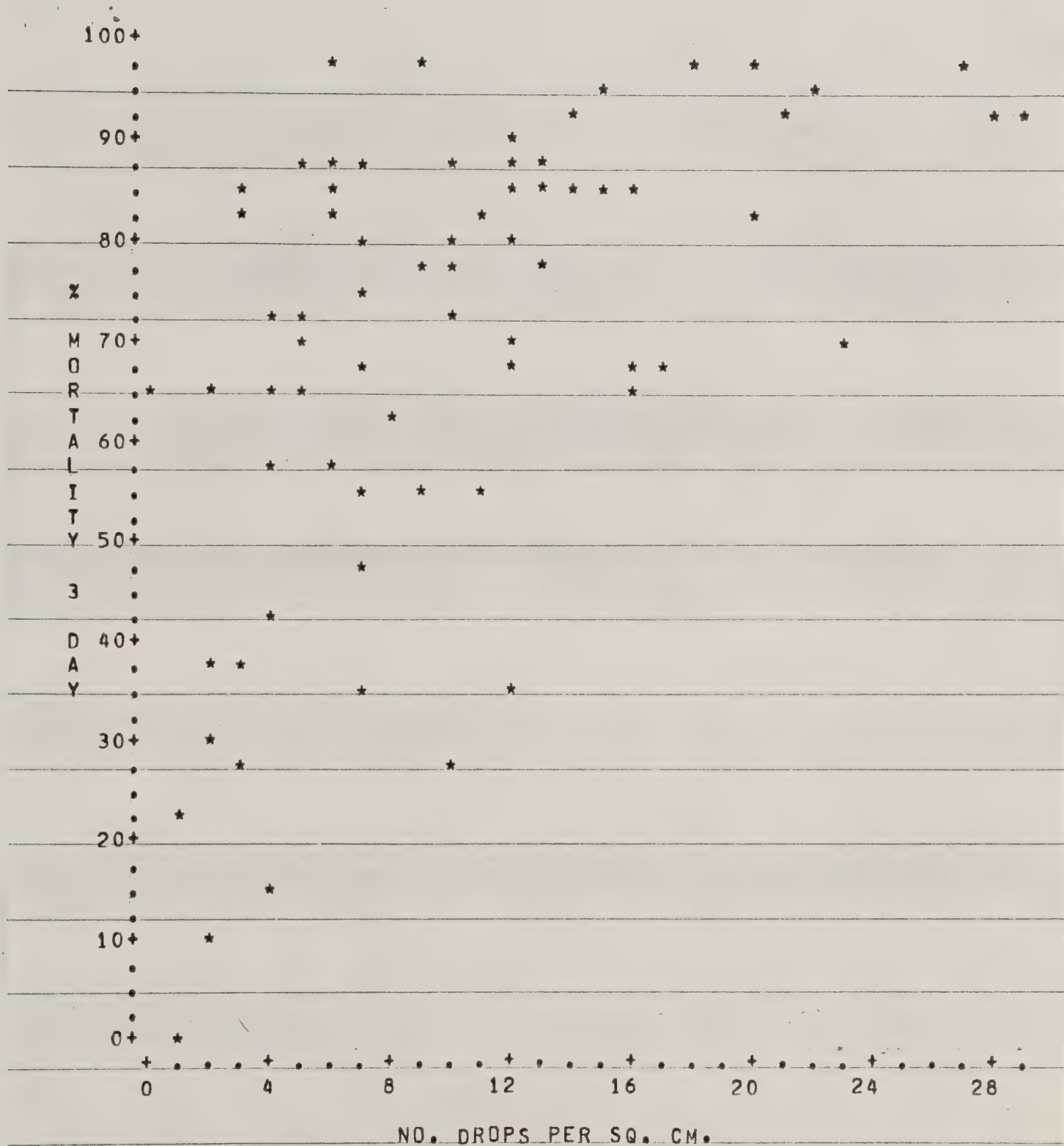


Figure 1. Blocks 1, 2, and 7, Dylox, 1976 Montana Pilot Project
Mortality at 3 days vs. spray deposit in number of drops/cm².

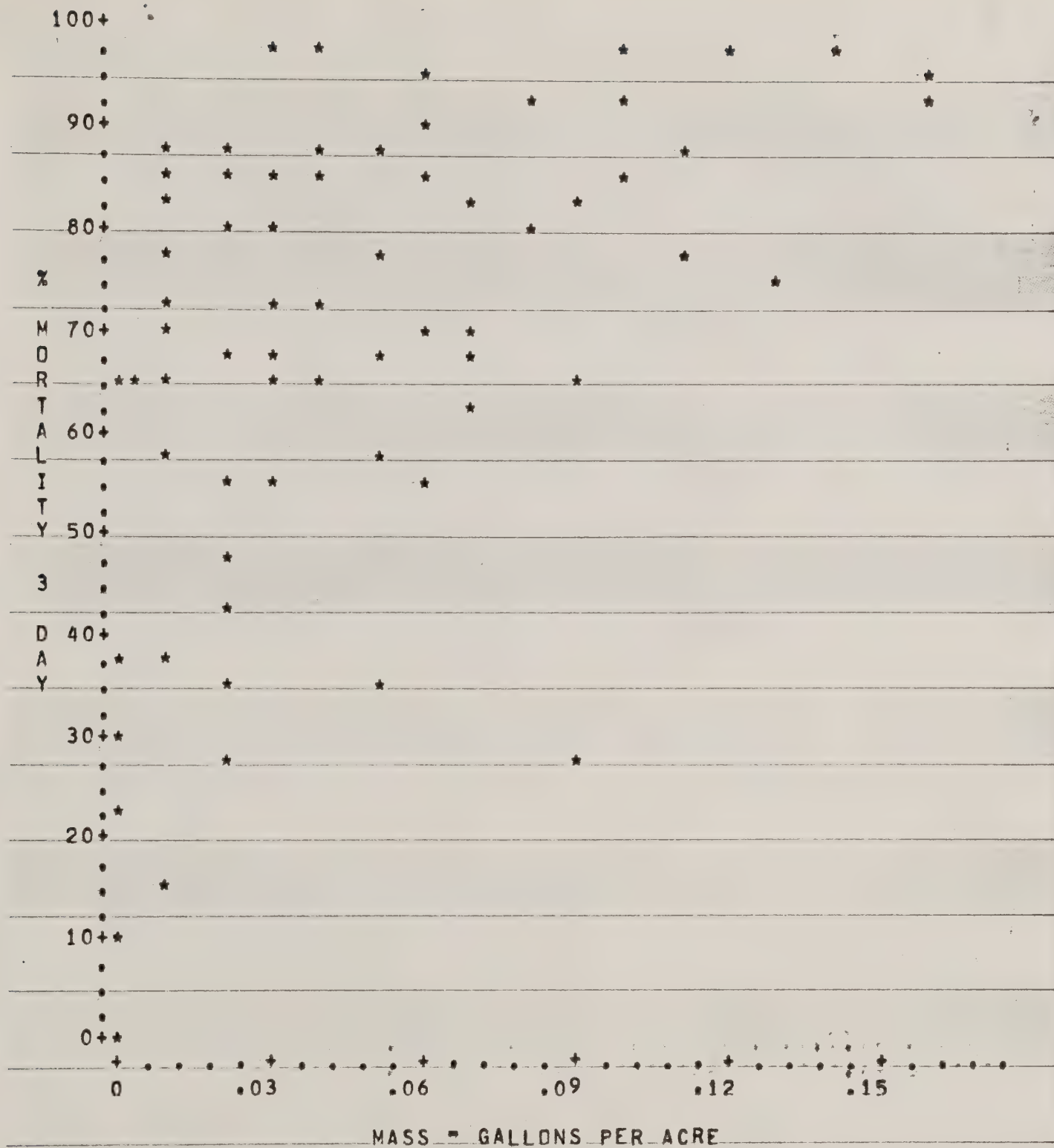


Figure 2. Blocks 1, 2, and 7, Dylox, 1976 Montana Pilot Project
Mortality at 3 days vs. spray deposit in gallons per acre.

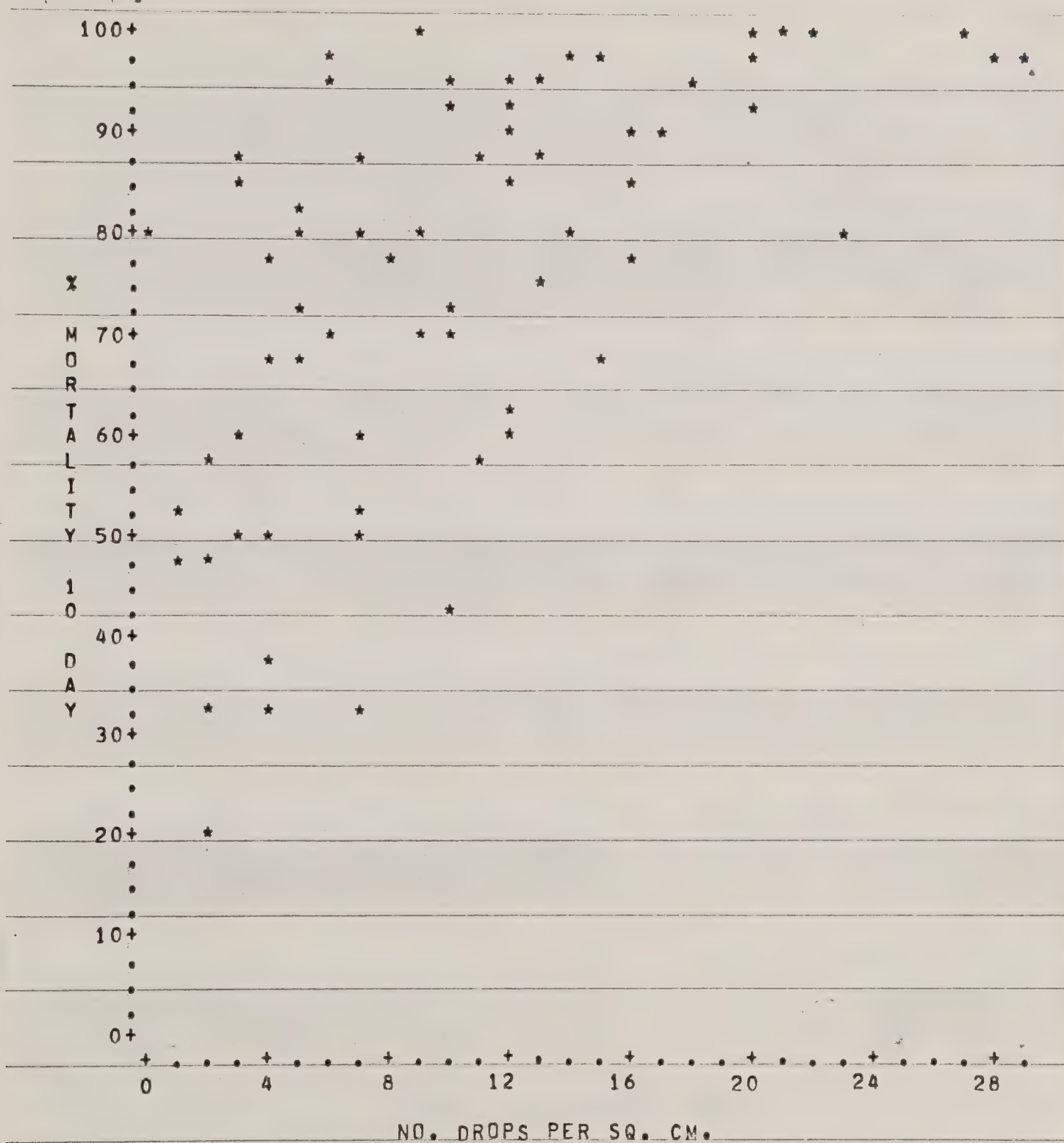


Figure 3. Blocks 1,2, and 7, Dylox, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in number of drops/cm².

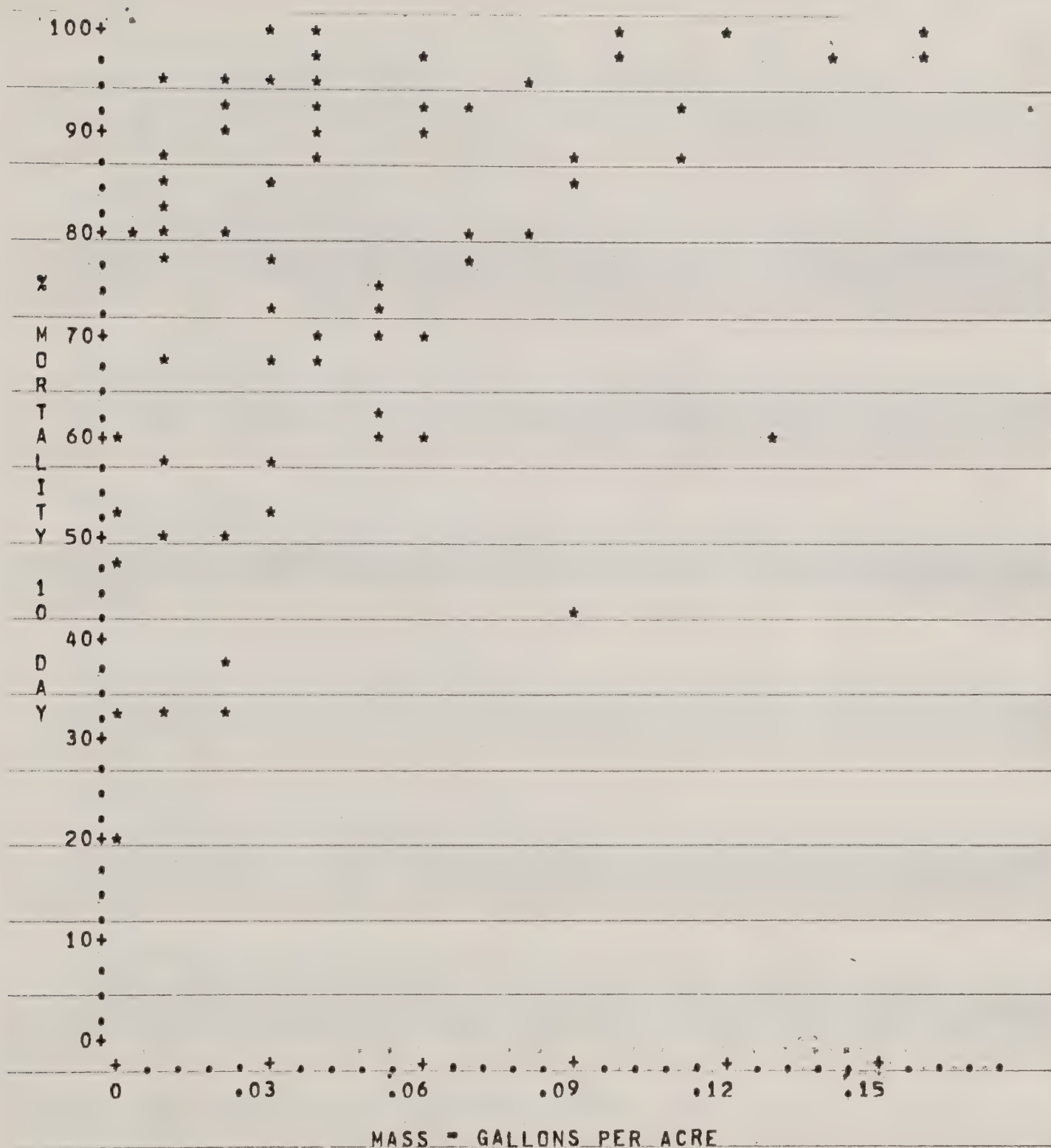


Figure 4. Blocks 1, 2, and 7, Dylox, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in gallons per acre.

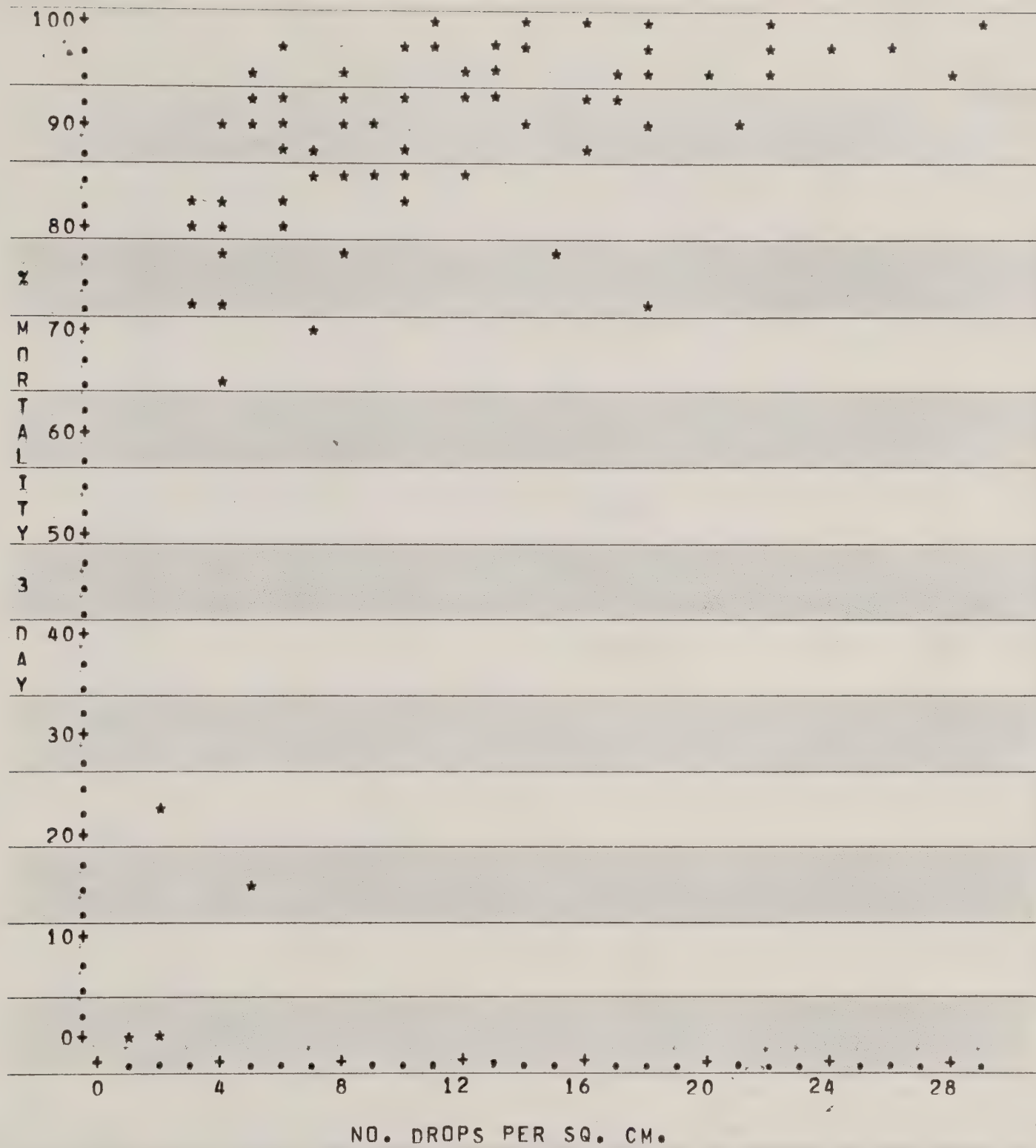


Figure 5. Blocks, 3, 5, and 8, Orthene, 1976 Montana Pilot Project
Mortality at 3 days vs. spray deposit in number of drops/cm².

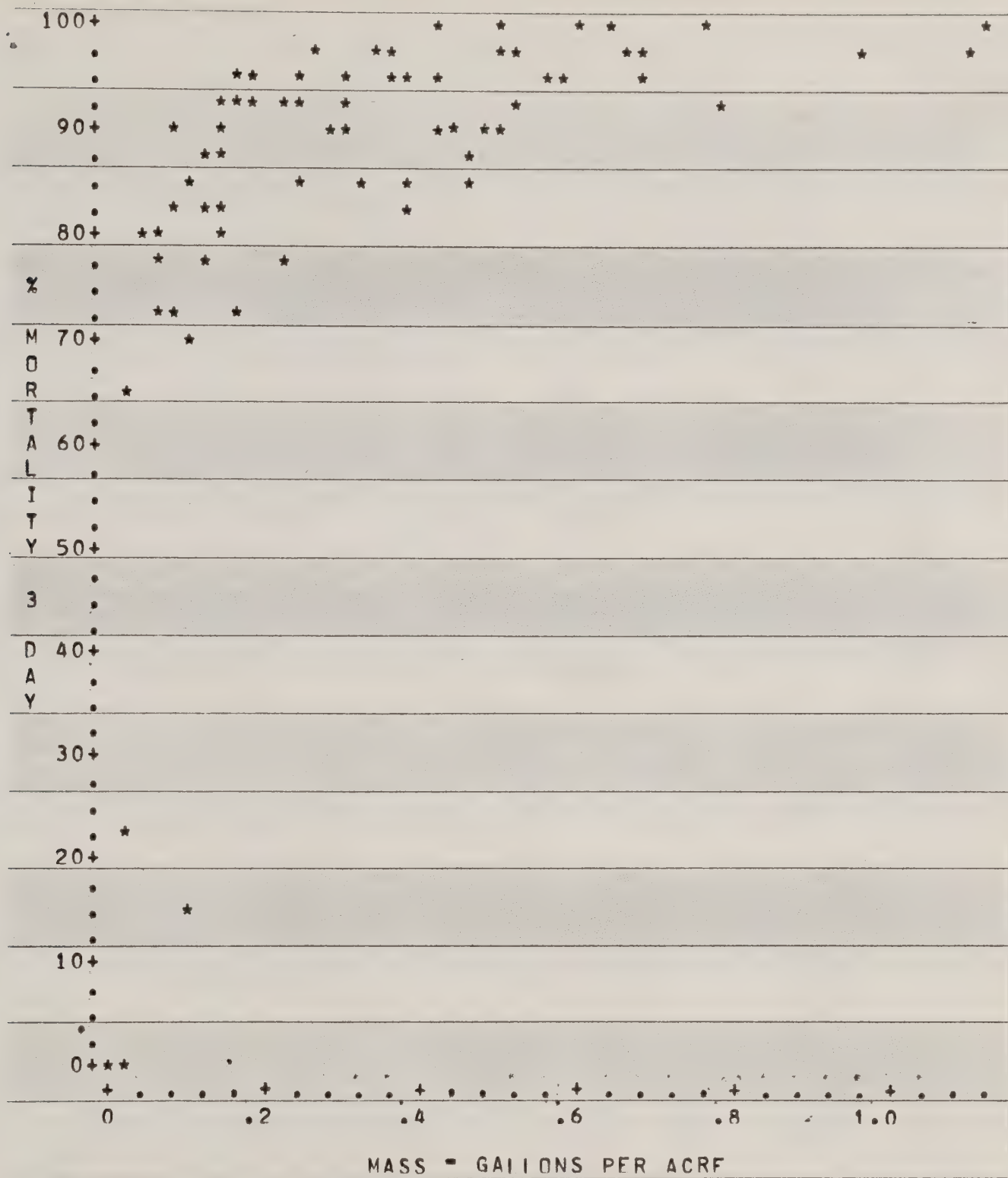


Figure 6. Blocks, 3,5, and 8, Orthene, 1976 Montana Pilot Project
Mortality at 3 days vs. spray deposit in gallons per acre.

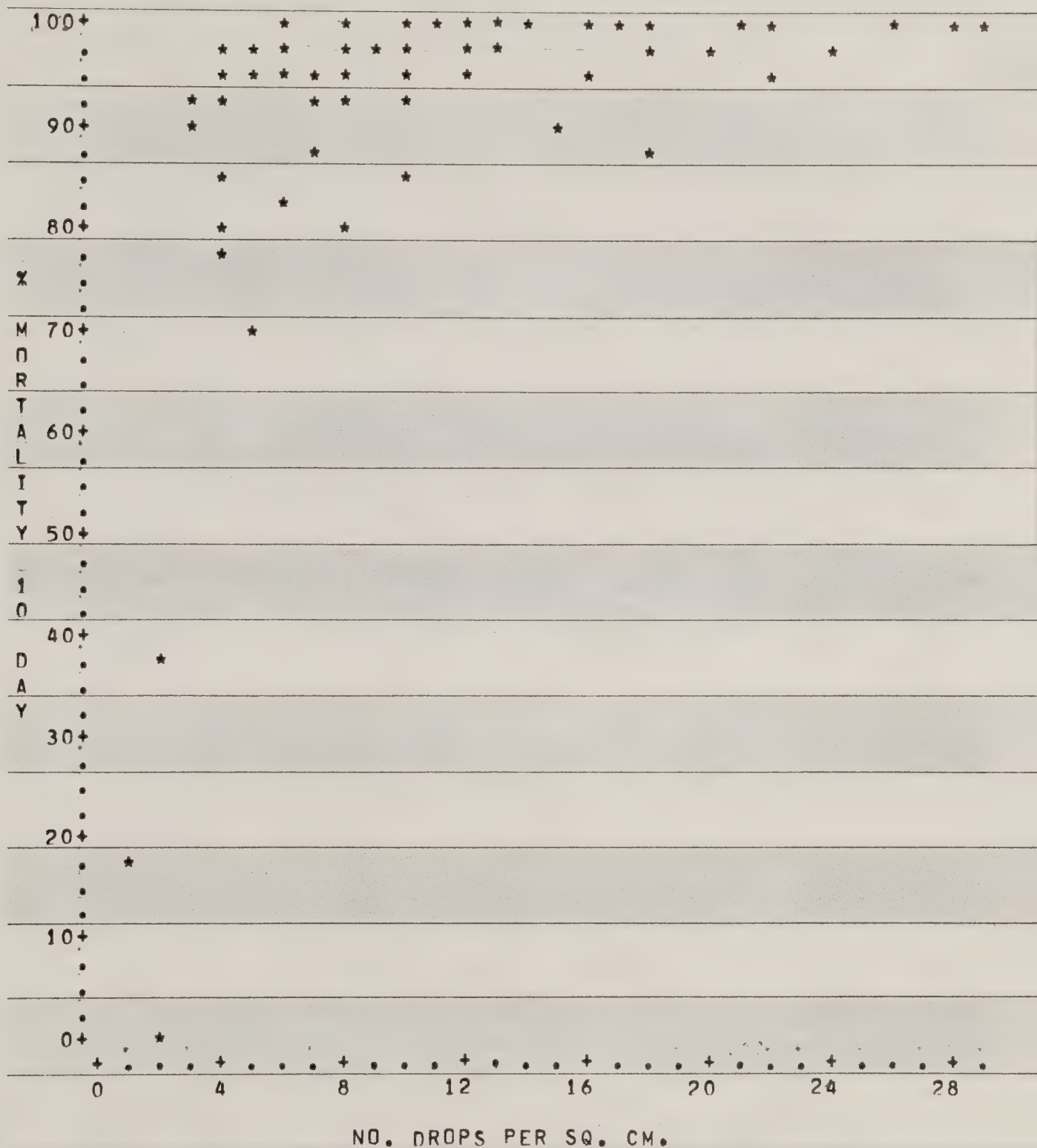


Figure 7. Blocks, 3,5, and 8, Orthene, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in number of drops/cm².

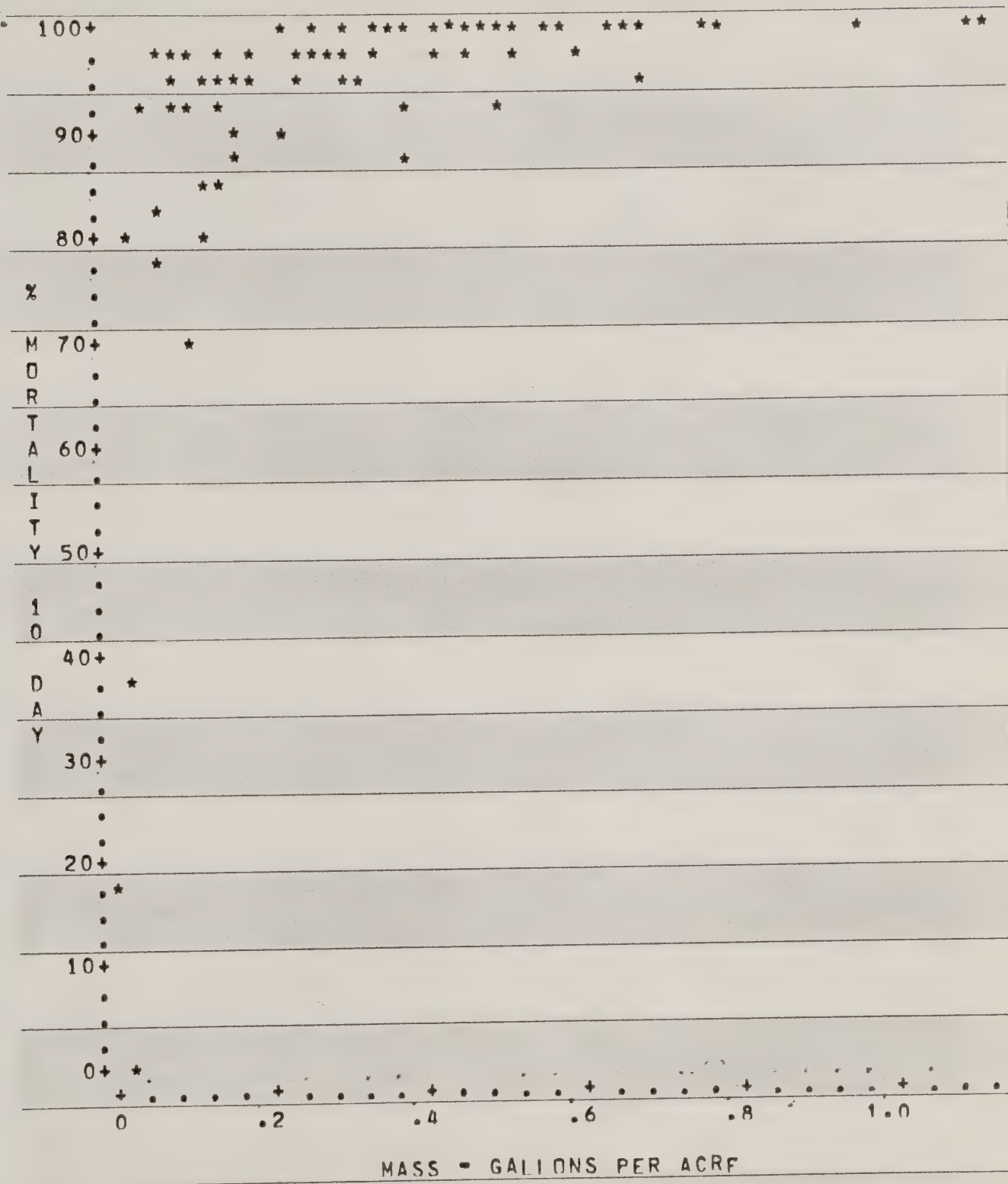


Figure 8. Blocks, 3,5, and 8, Orthene, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in gallons per acre.

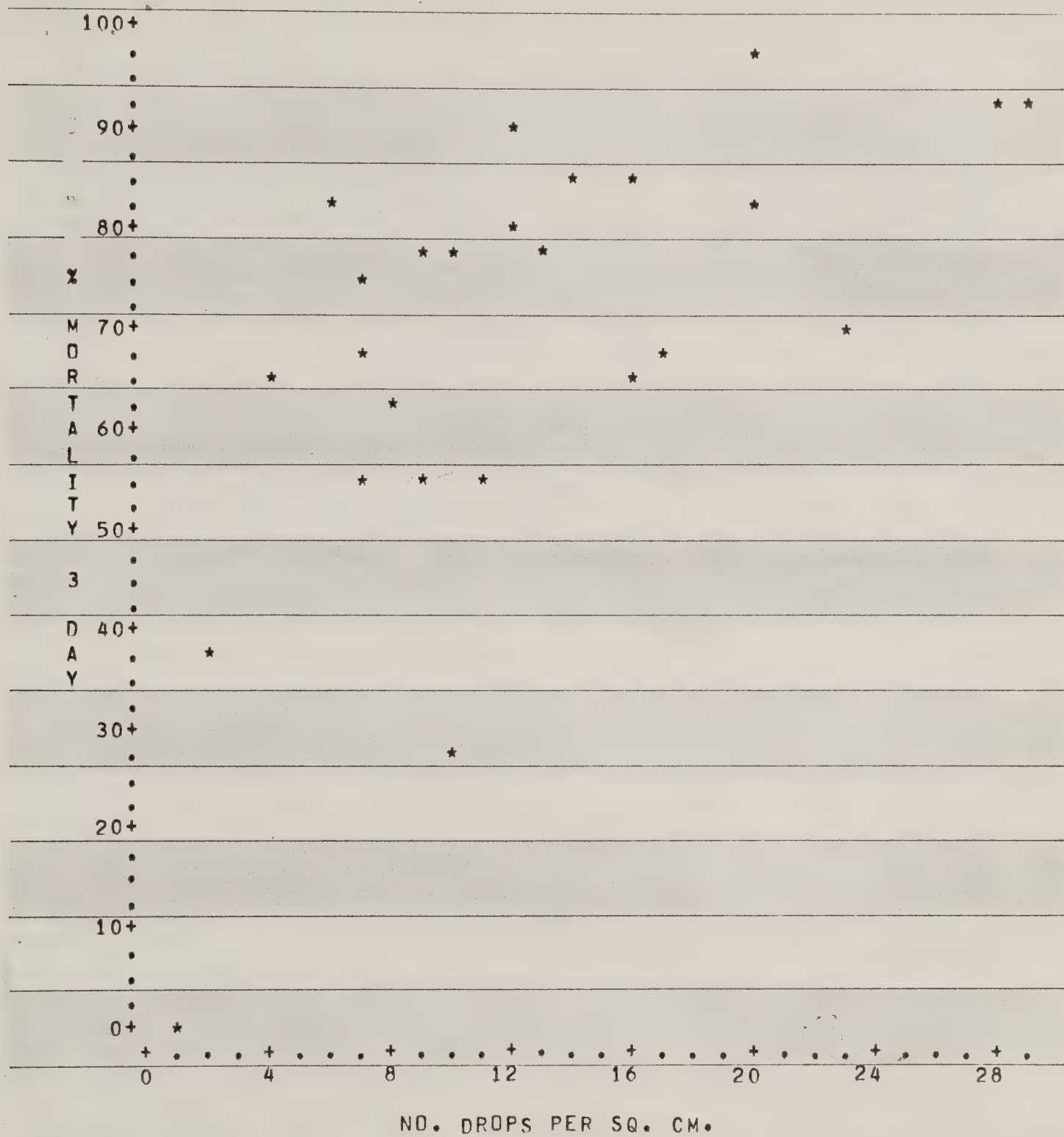


Figure 9. Block 1, Dylox, 1976 Montana Pilot Project Mortality at 3 days vs. spray deposit in number of drops/cm².

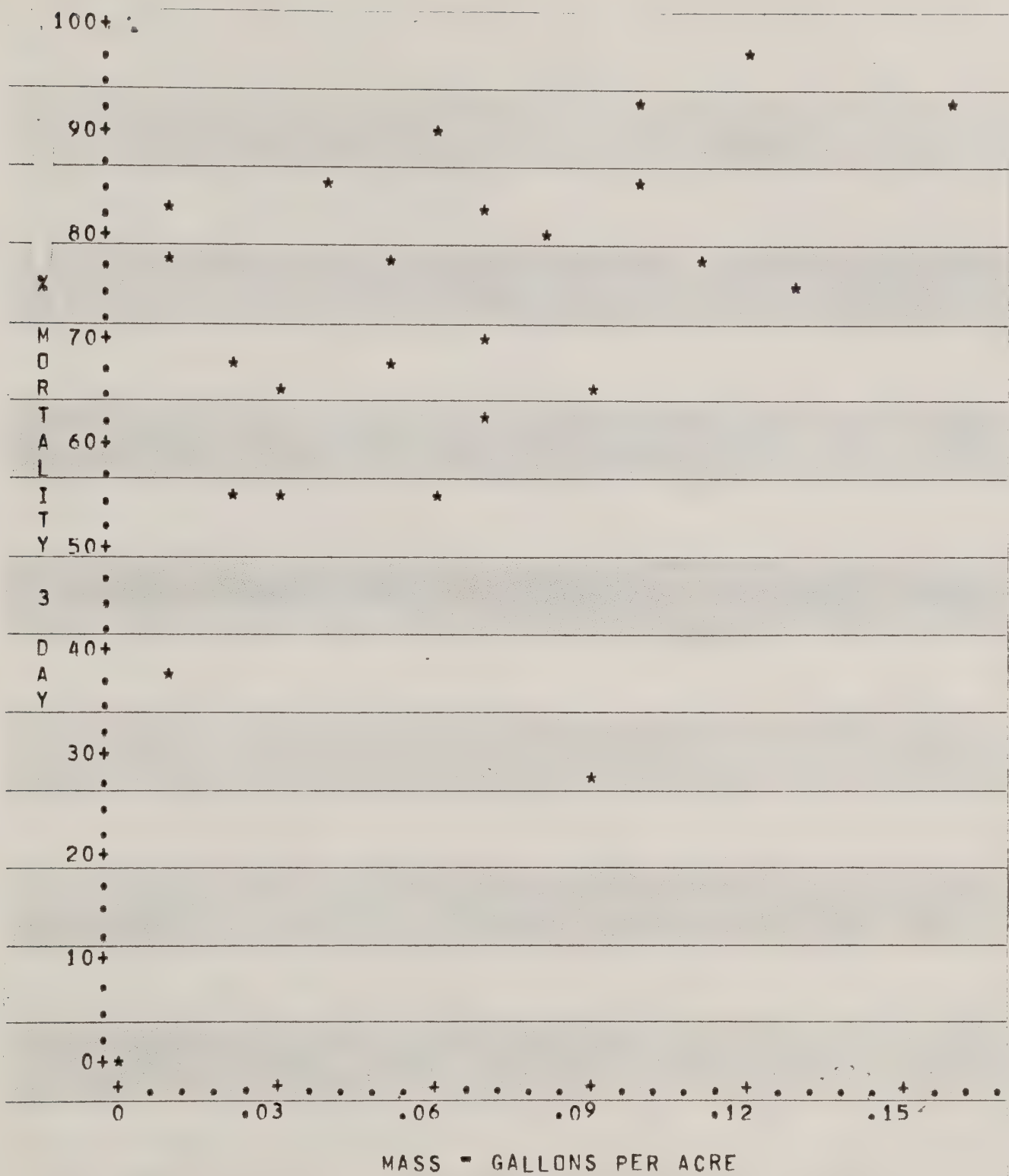


Figure 10. Block 1, Dylox, 1976 Montana Pilot Project Mortality at 3 days vs. spray deposit in gallons per acre.

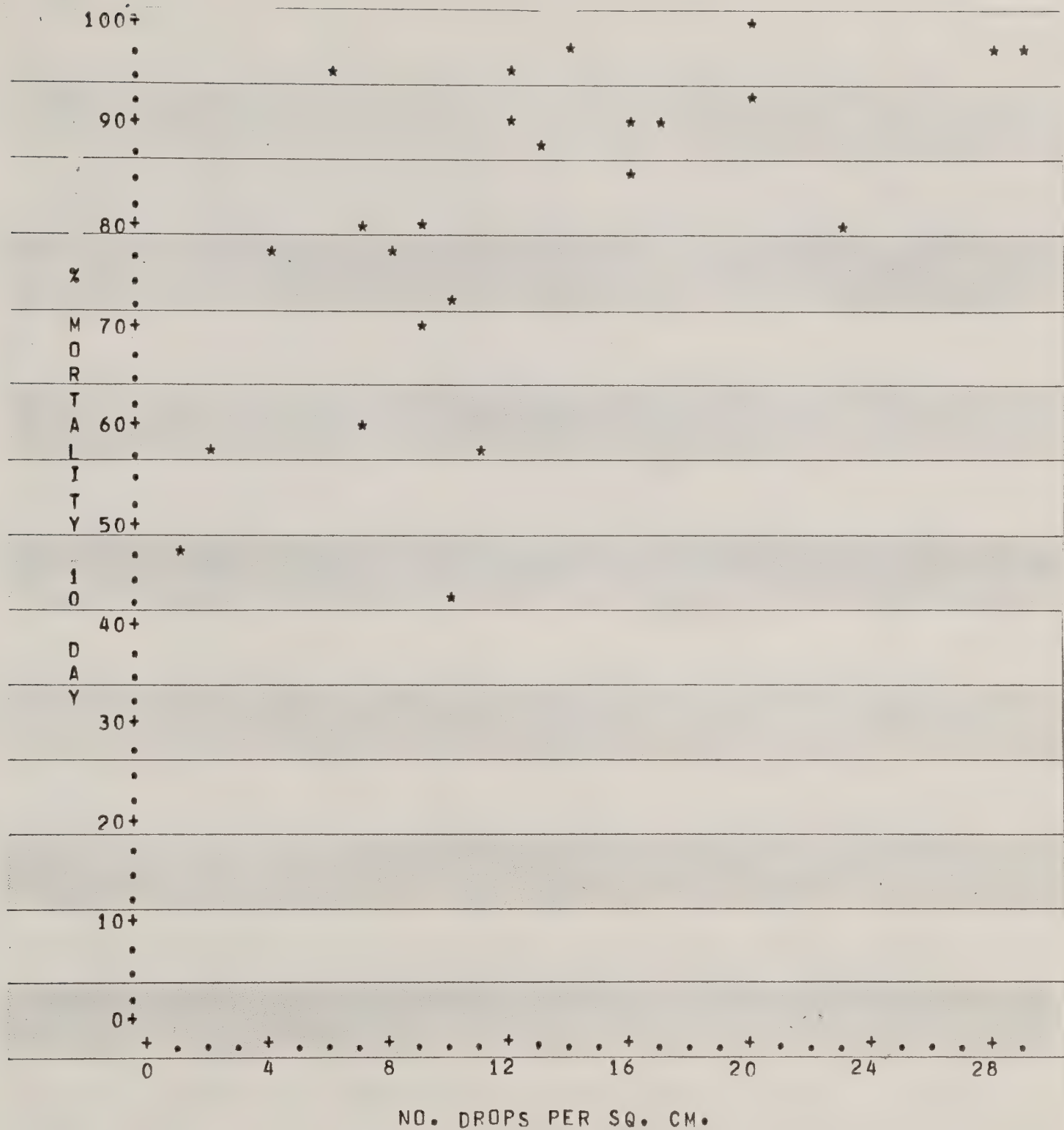


Figure 11. Block 1, Dylox, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in
number of drops/cm².

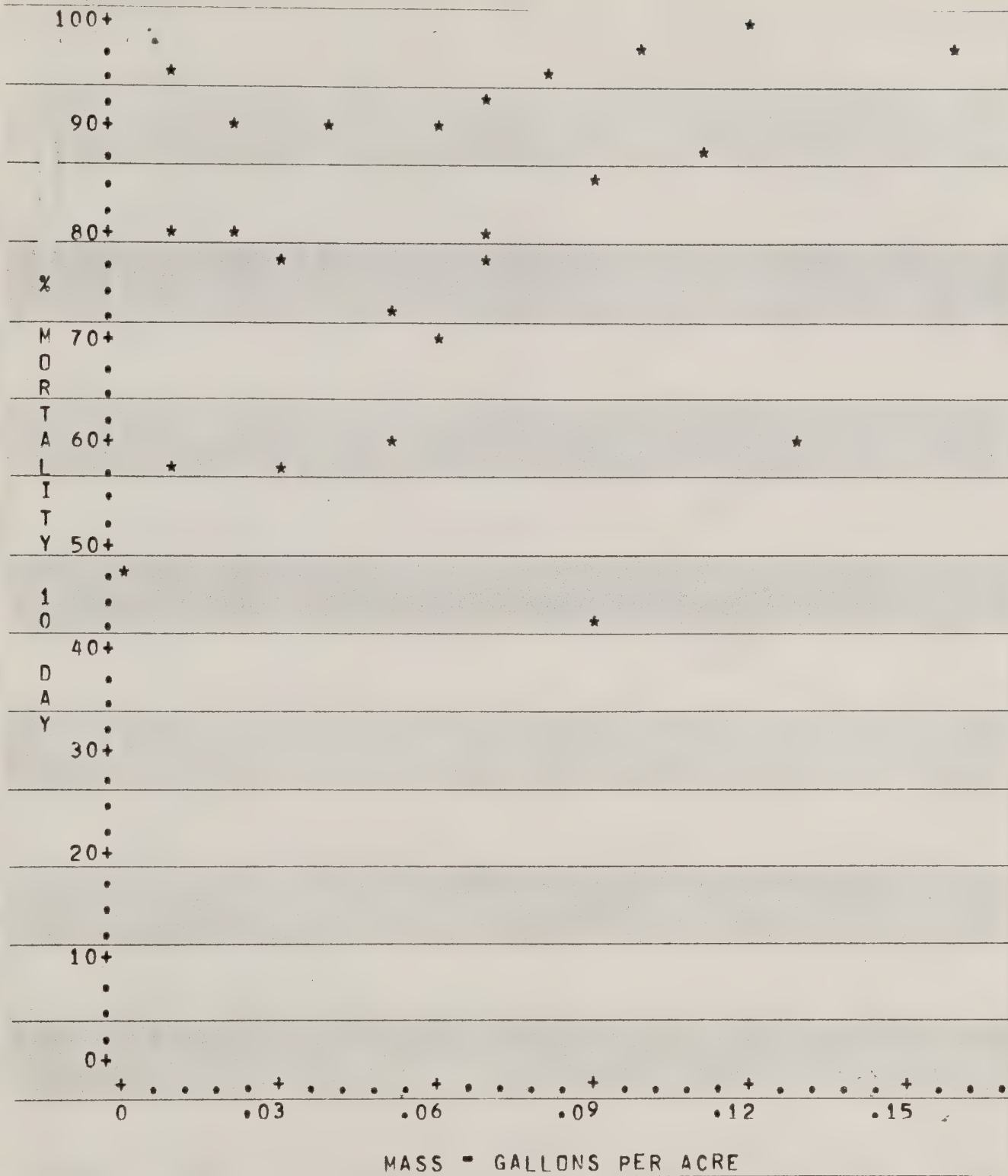


Figure 12. Block 1, Dylox, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in
gallons per acre.

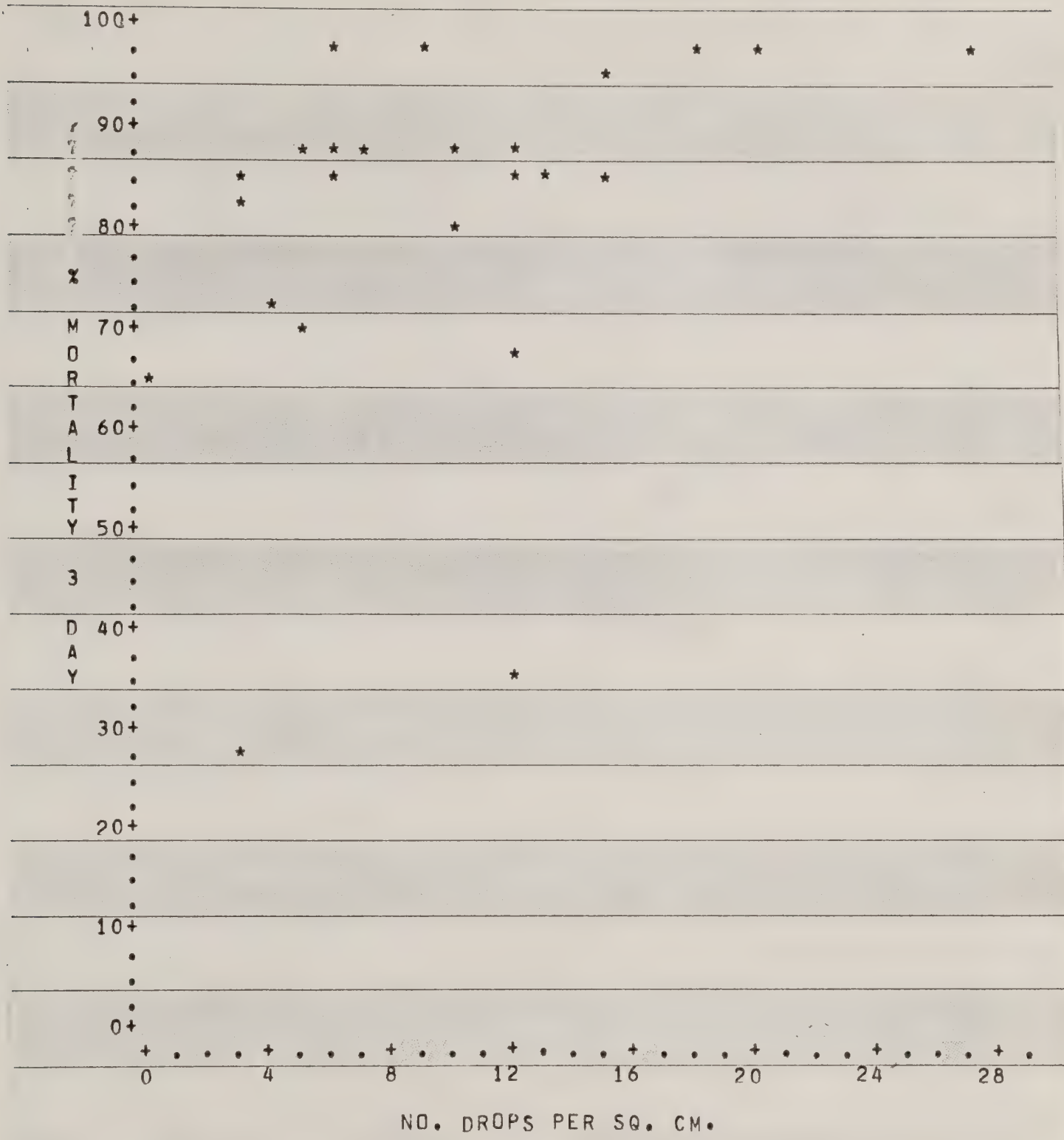


Figure 13. Block 2, Dylox, 1976 Montana Pilot Project
Mortality at 3 days vs. spray deposit in
number of drops/cm².

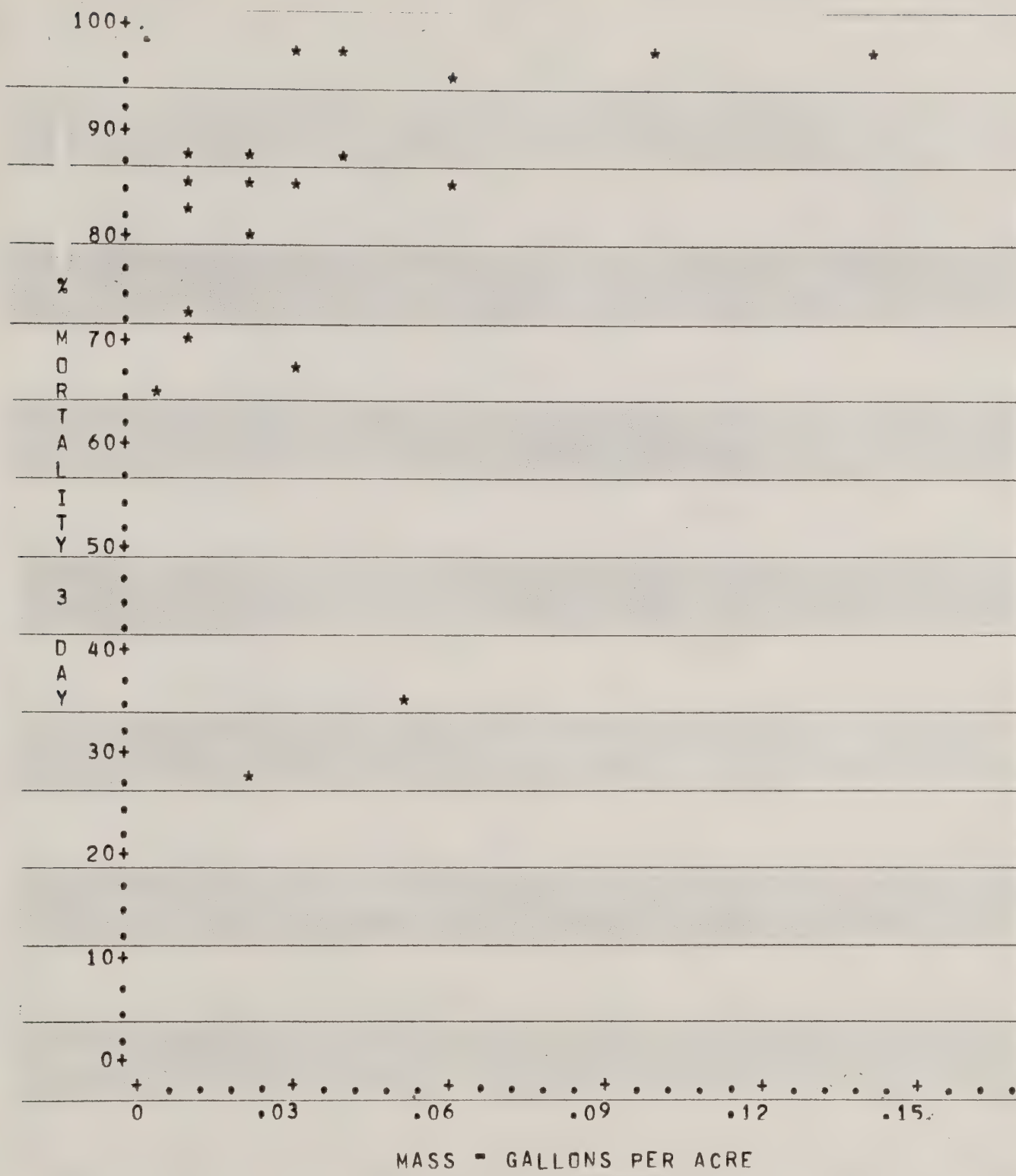


Figure 14. Block 2, Dylox, 1976 Montana Pilot Project Mortality at 3 days vs. spray deposit in gallons per acre.

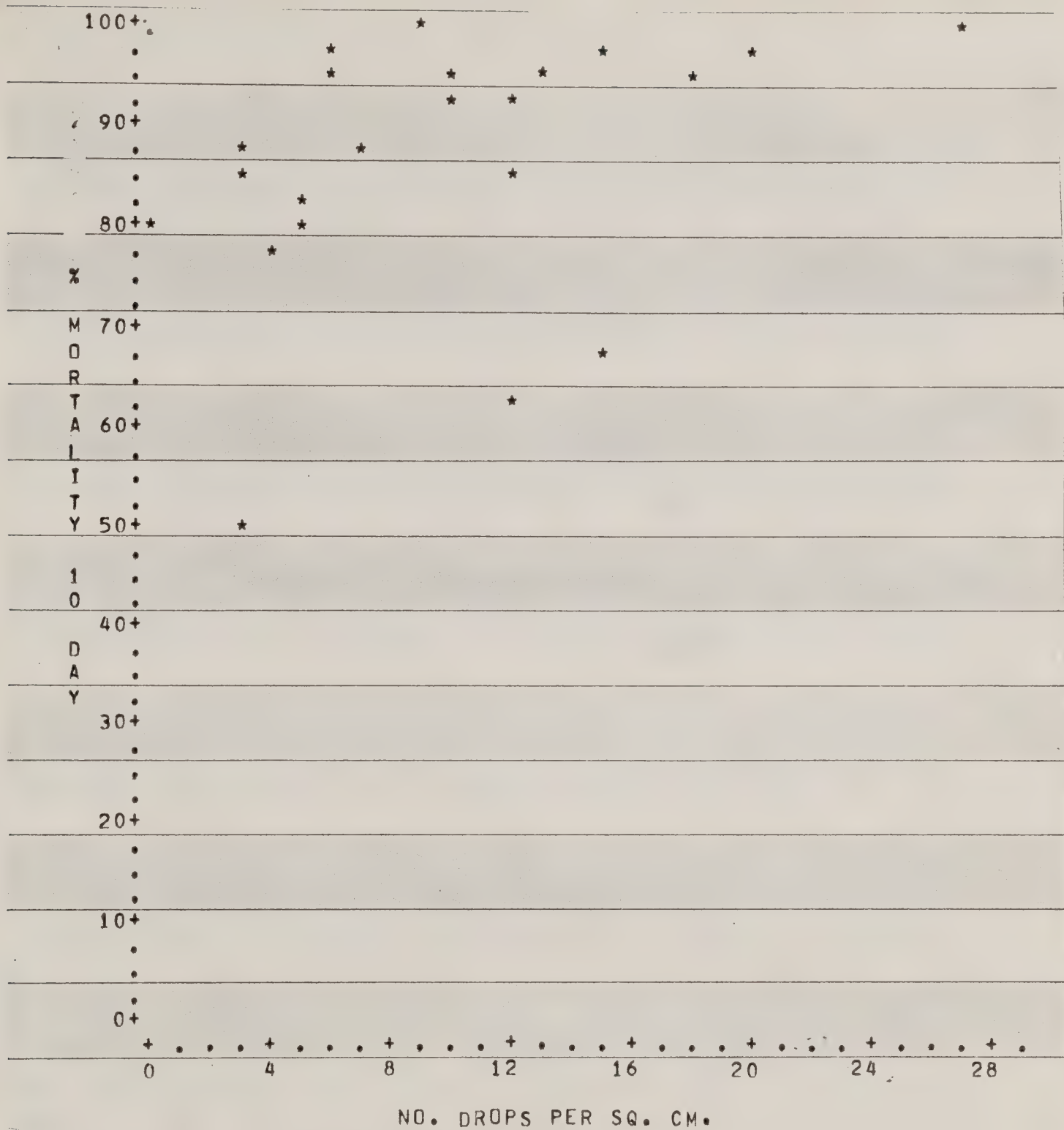


Figure 15. Block 2, Dylox, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in
number of drops/cm².

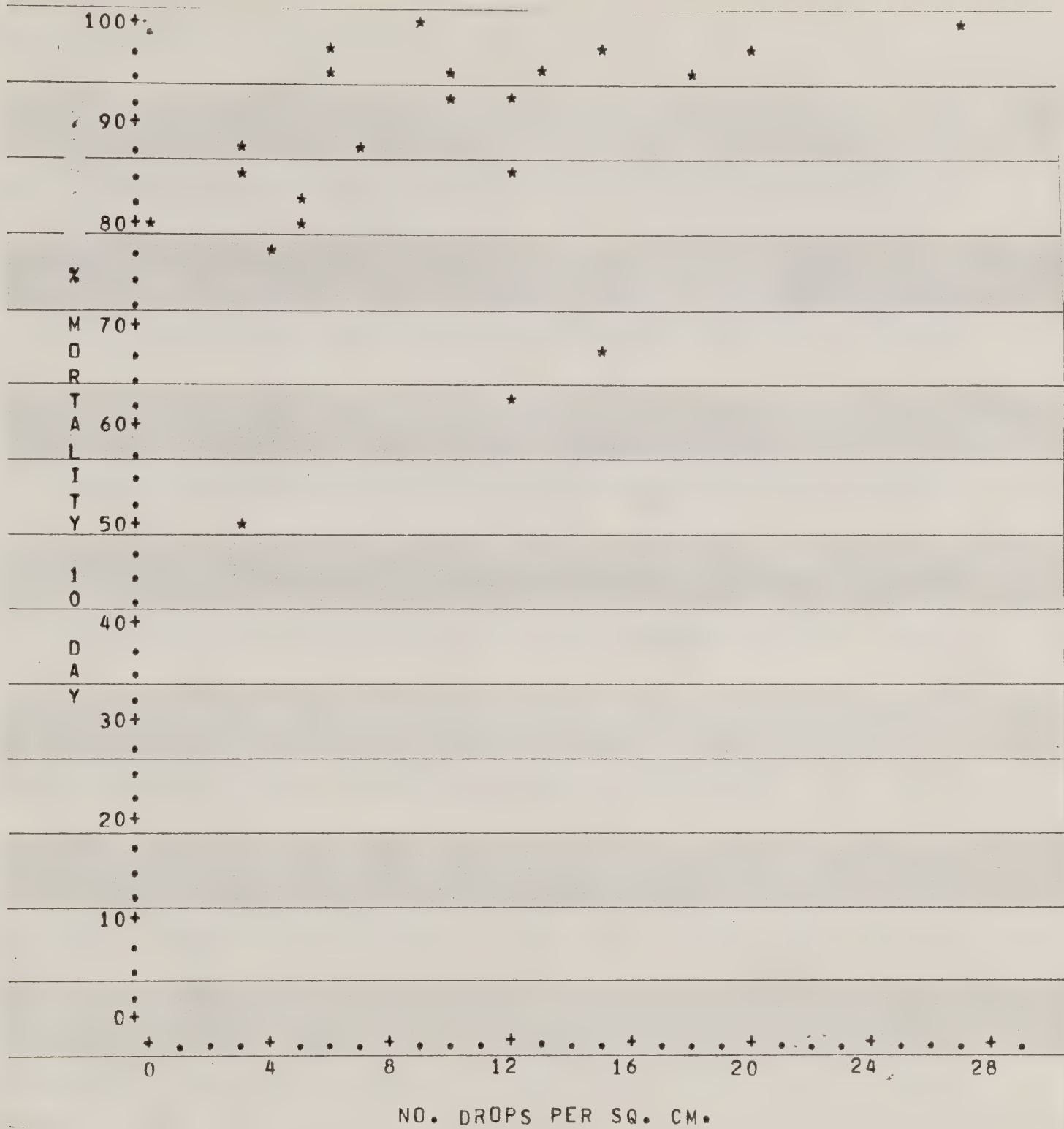


Figure 15. Block 2, Dylox, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in
number of drops/cm².

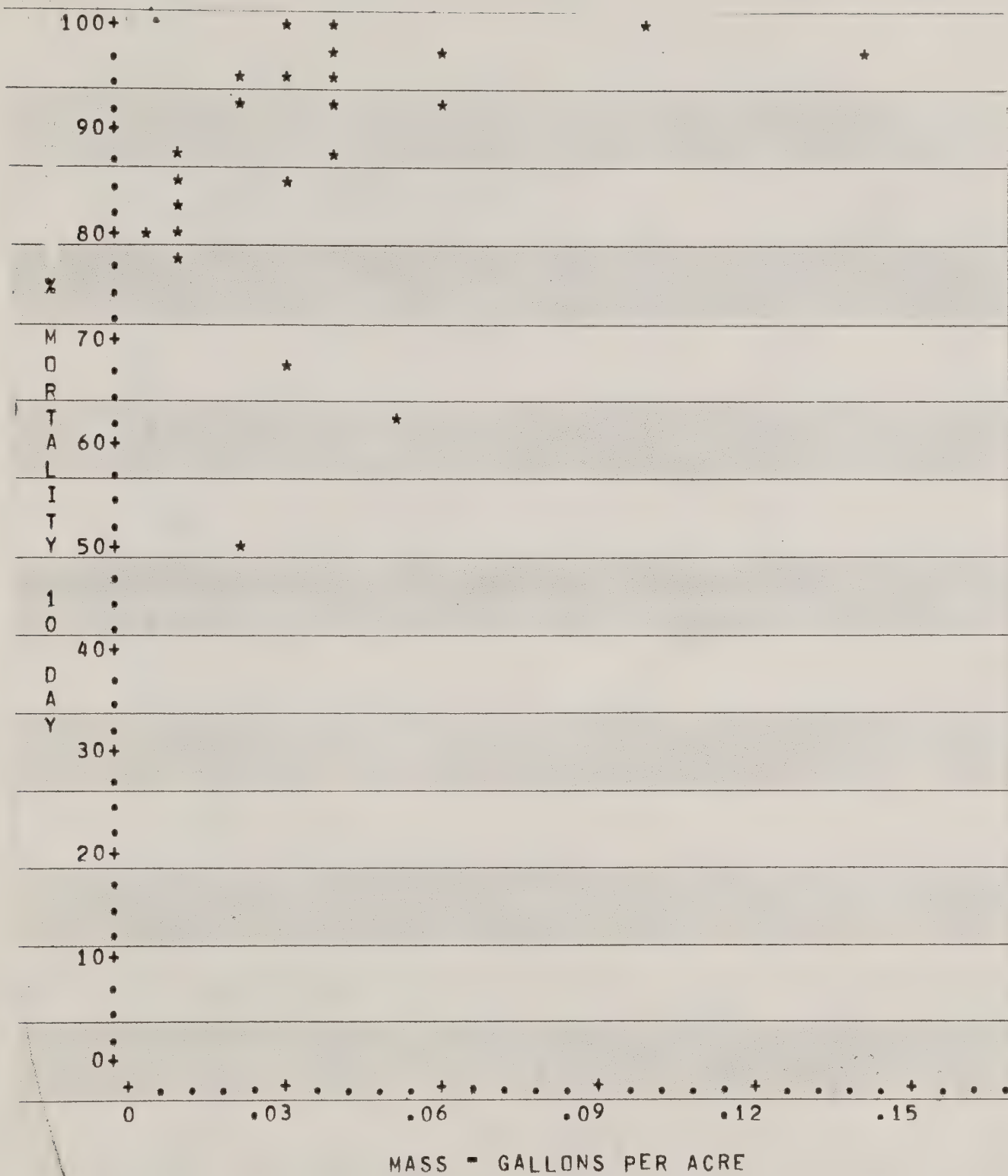


Figure 16. Block 2, Dylox, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in
gallons per acre.

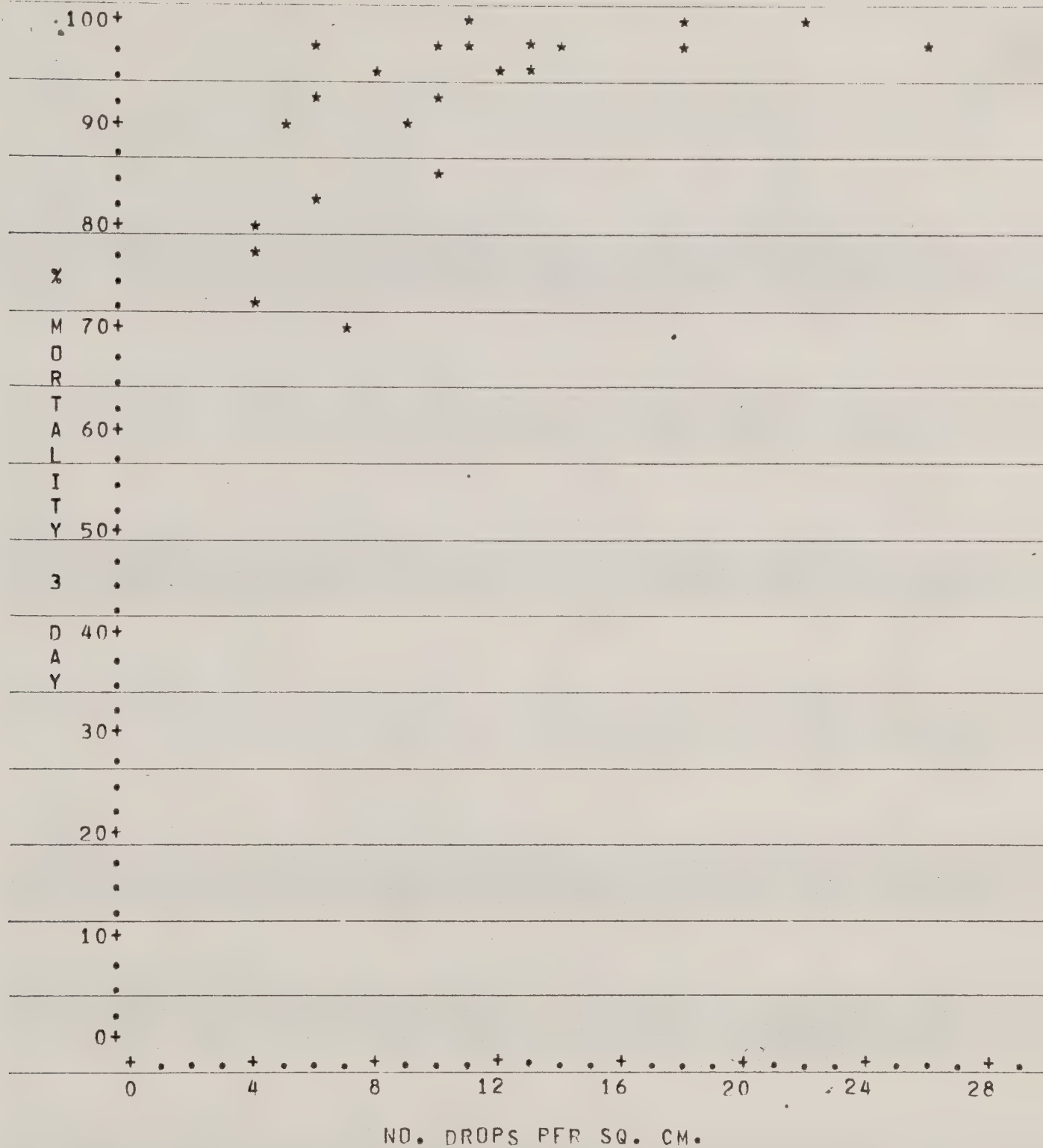


Figure 17. Block 3, Orthene, 1976 Montana Pilot Project Mortality at 3 days vs. spray deposit in number of drops/cm².

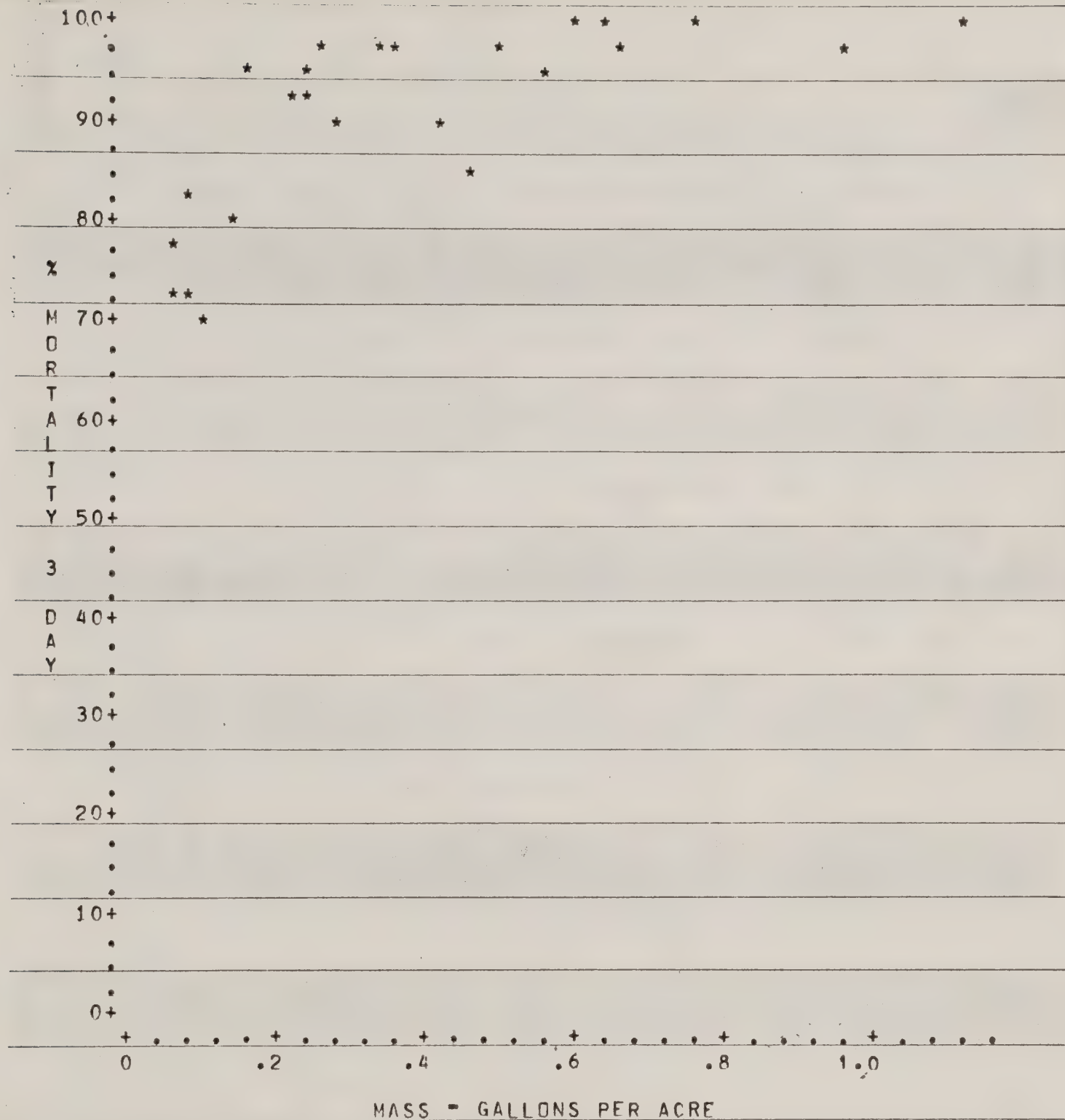


Figure 18. Block 3, Orthene, 1976 Montana Pilot Project
Mortality at 3 days vs. spray deposit in
gallons per acre.

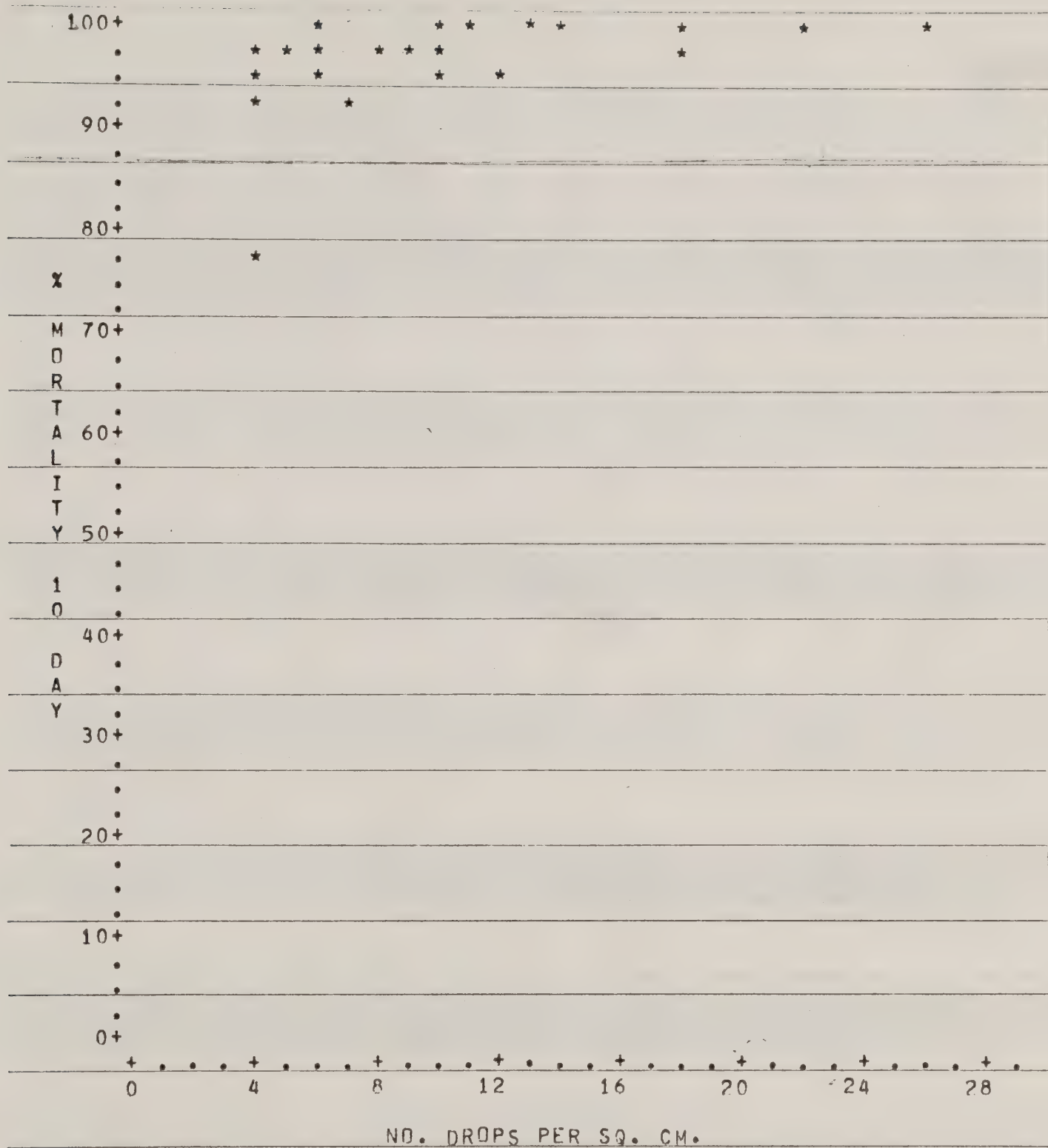


Figure 19. Block 3, Orthene, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in
number of drops/cm².

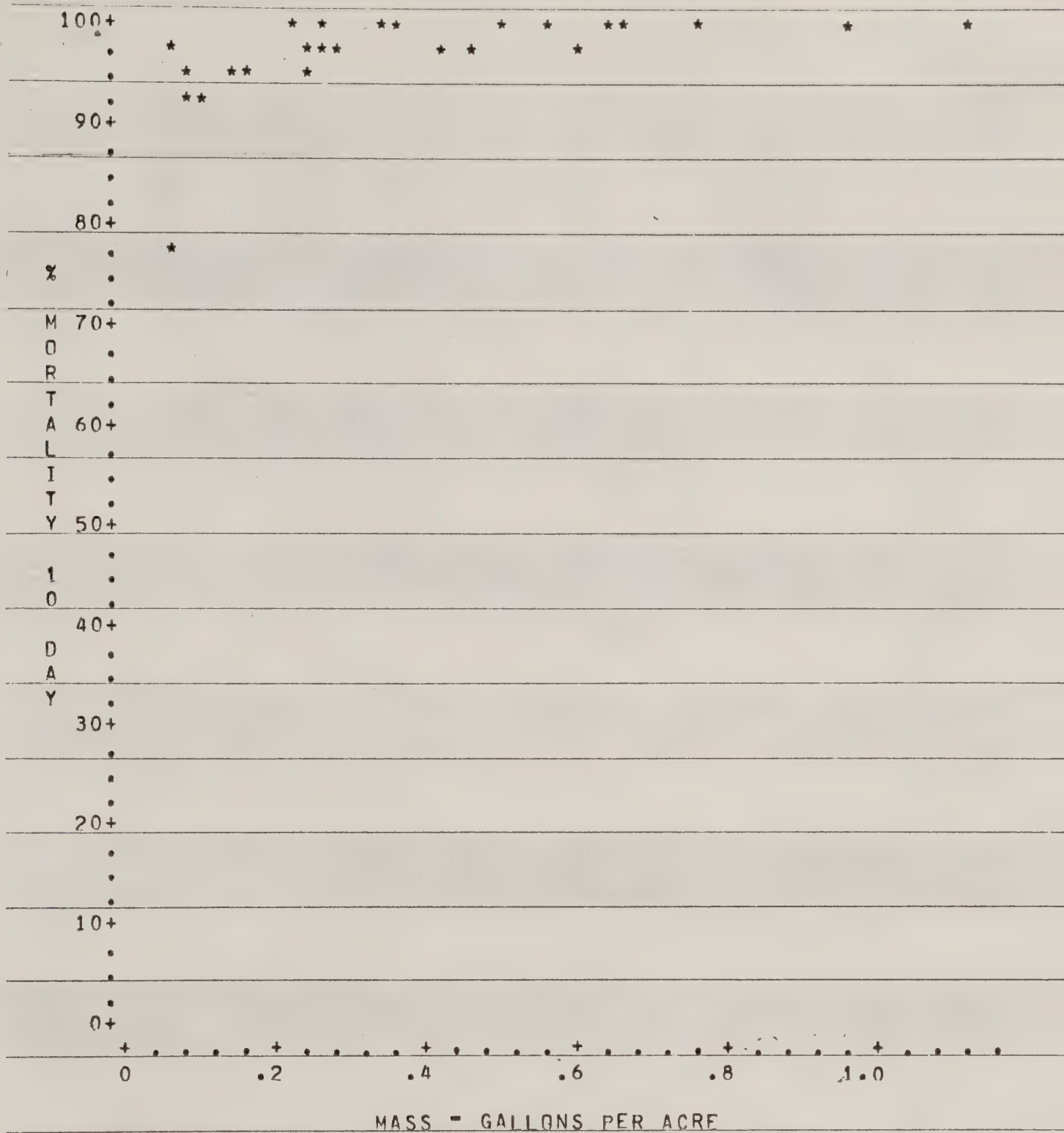


Figure 20. Block 3, Orthene, Montana 1976 Pilot Project Mortality at 10 days vs. spray deposit in gallons per acre.

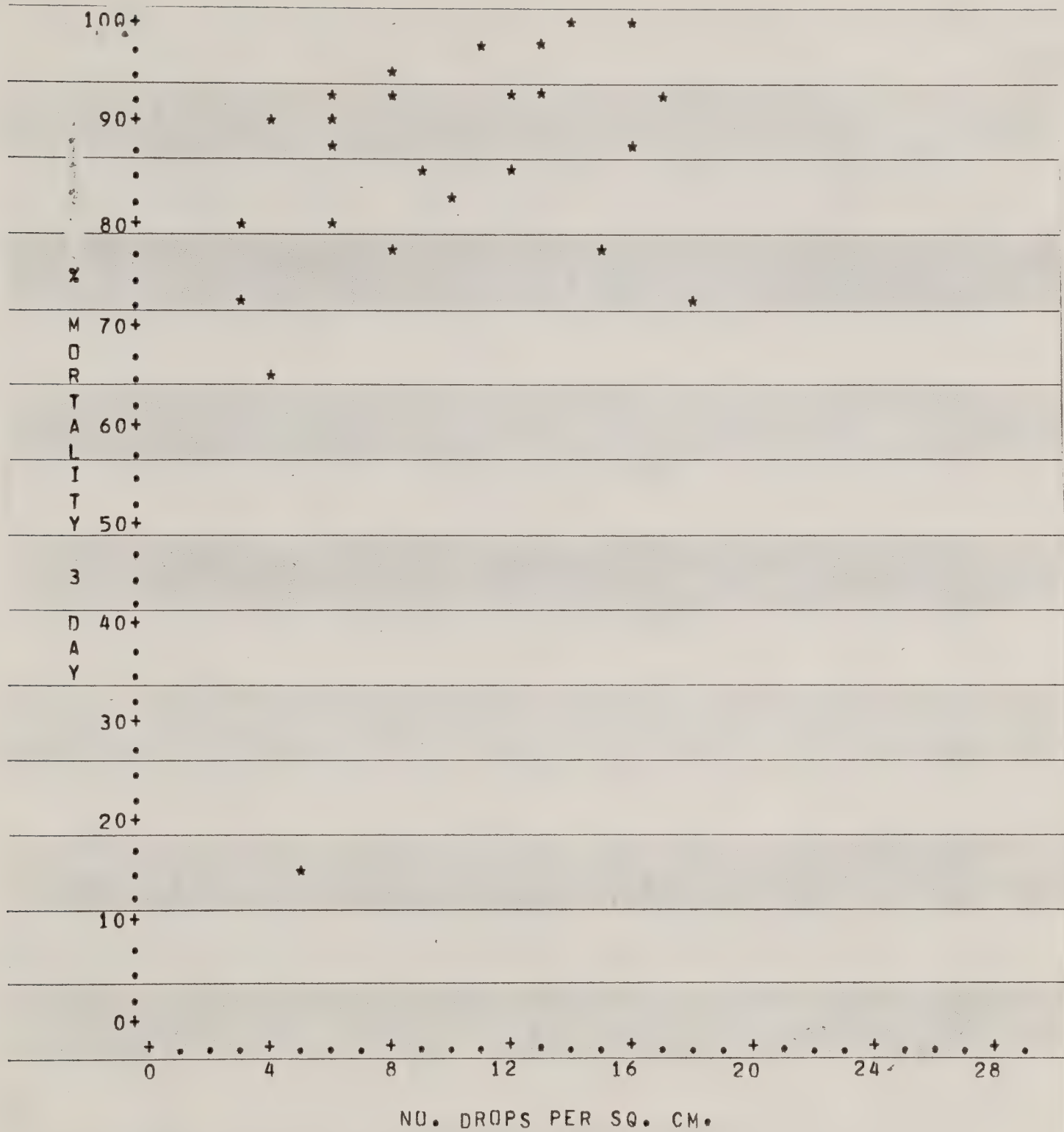


Figure 21. Block 5, Orthene, 1976 Montana Pilot Project
Mortality at 3 days vs. spray deposit in
number of drops/cm².

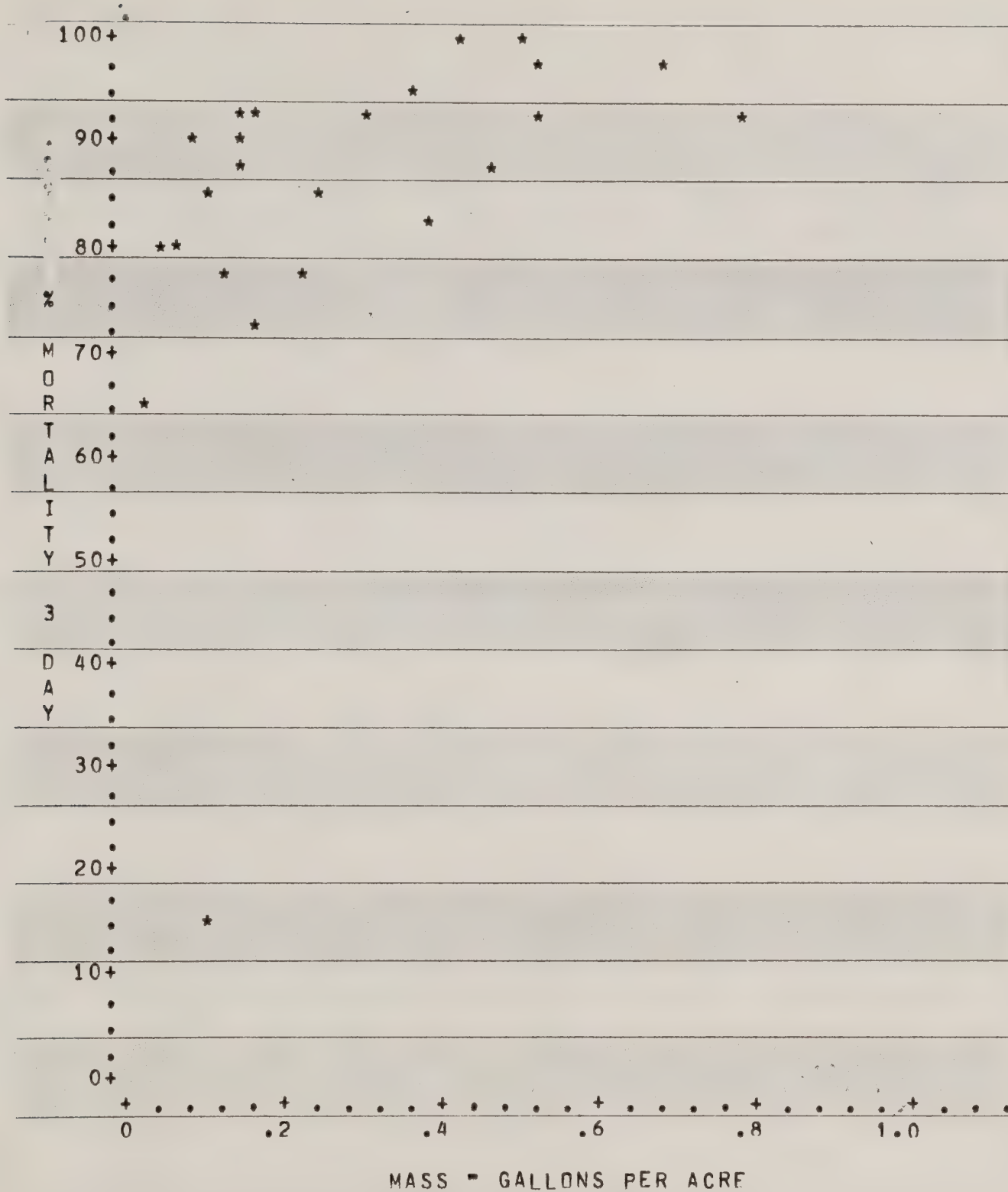


Figure 22. Block 5, Orthene, 1976 Montana Pilot Project Mortality at 3 days vs. spray deposit in gallons per acre.

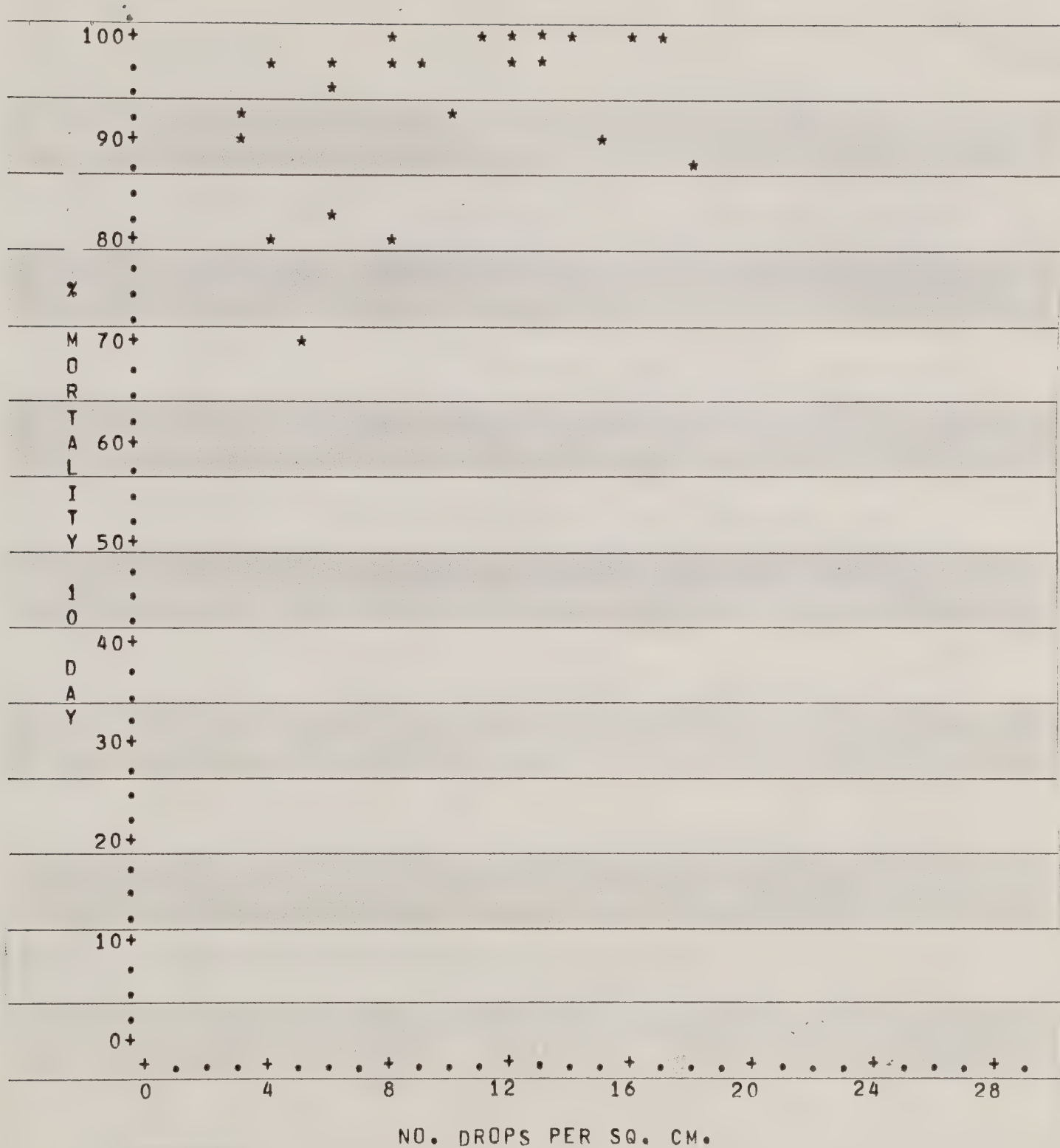


Figure23. Block 5, Orthene, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in
number of drops/cm².

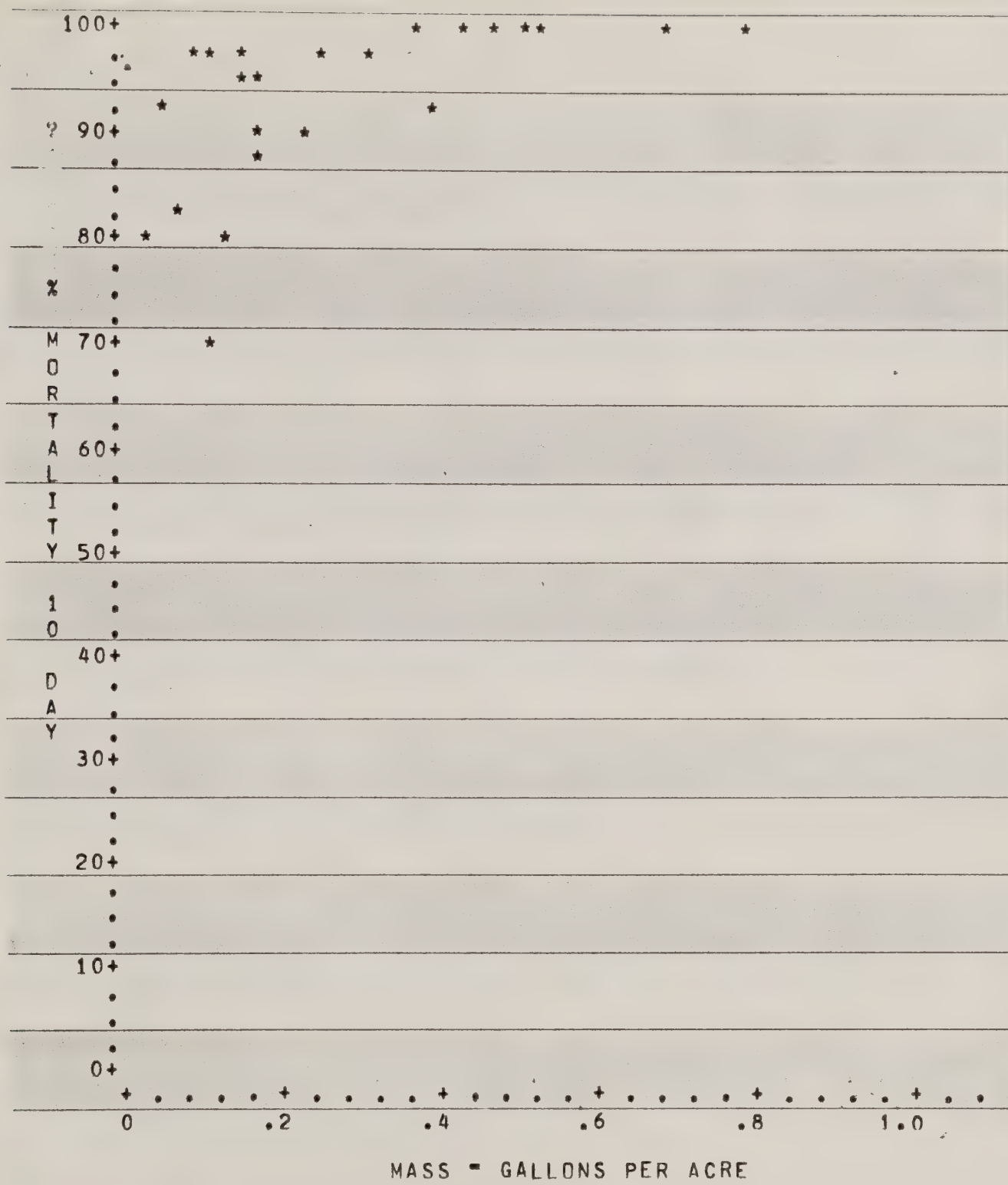
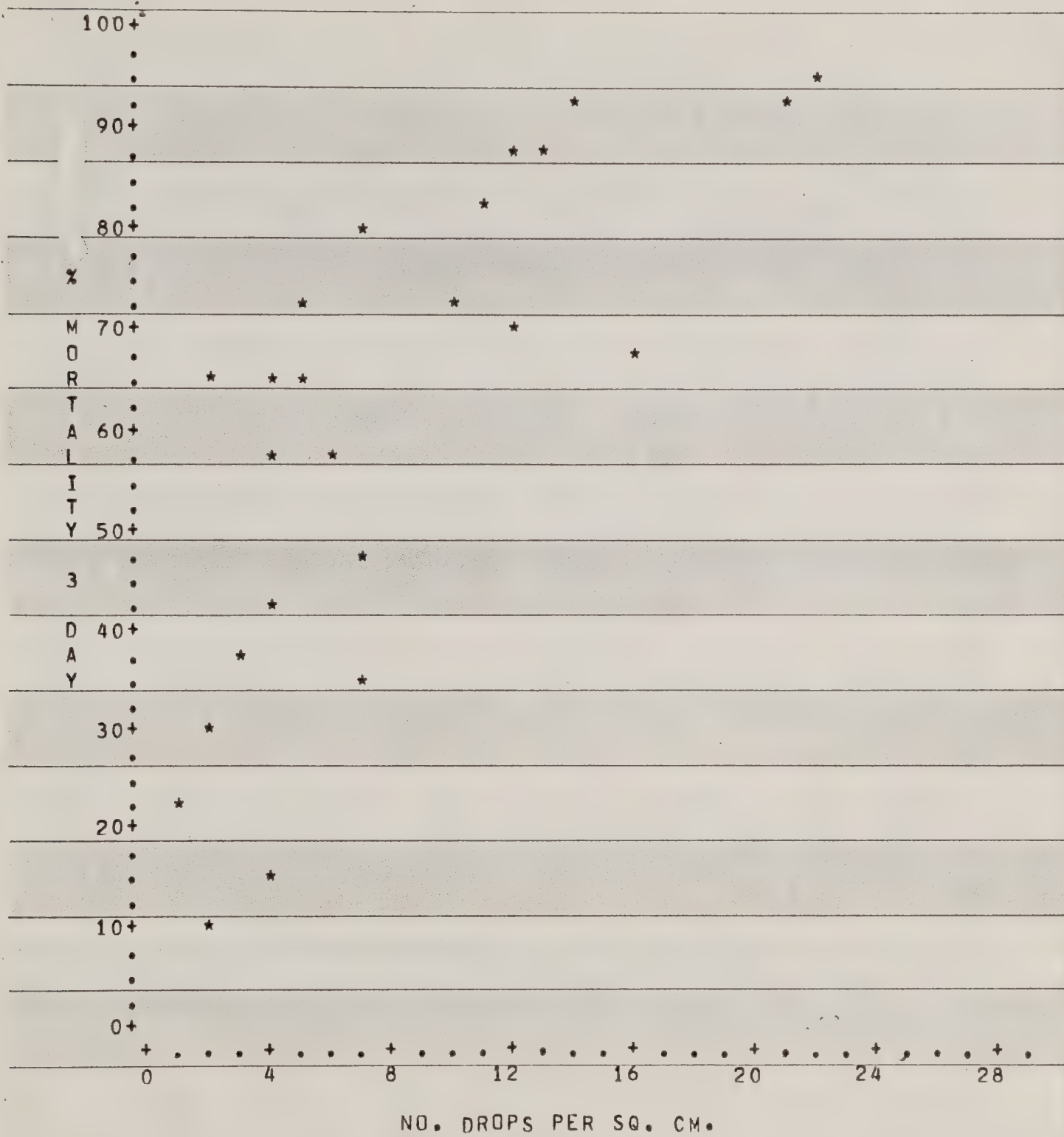


Figure 24. Block 5, Orthene, 1976 Montana Pilot Project
Mortality at 10 days vs. spray deposit in
gallons per acre.



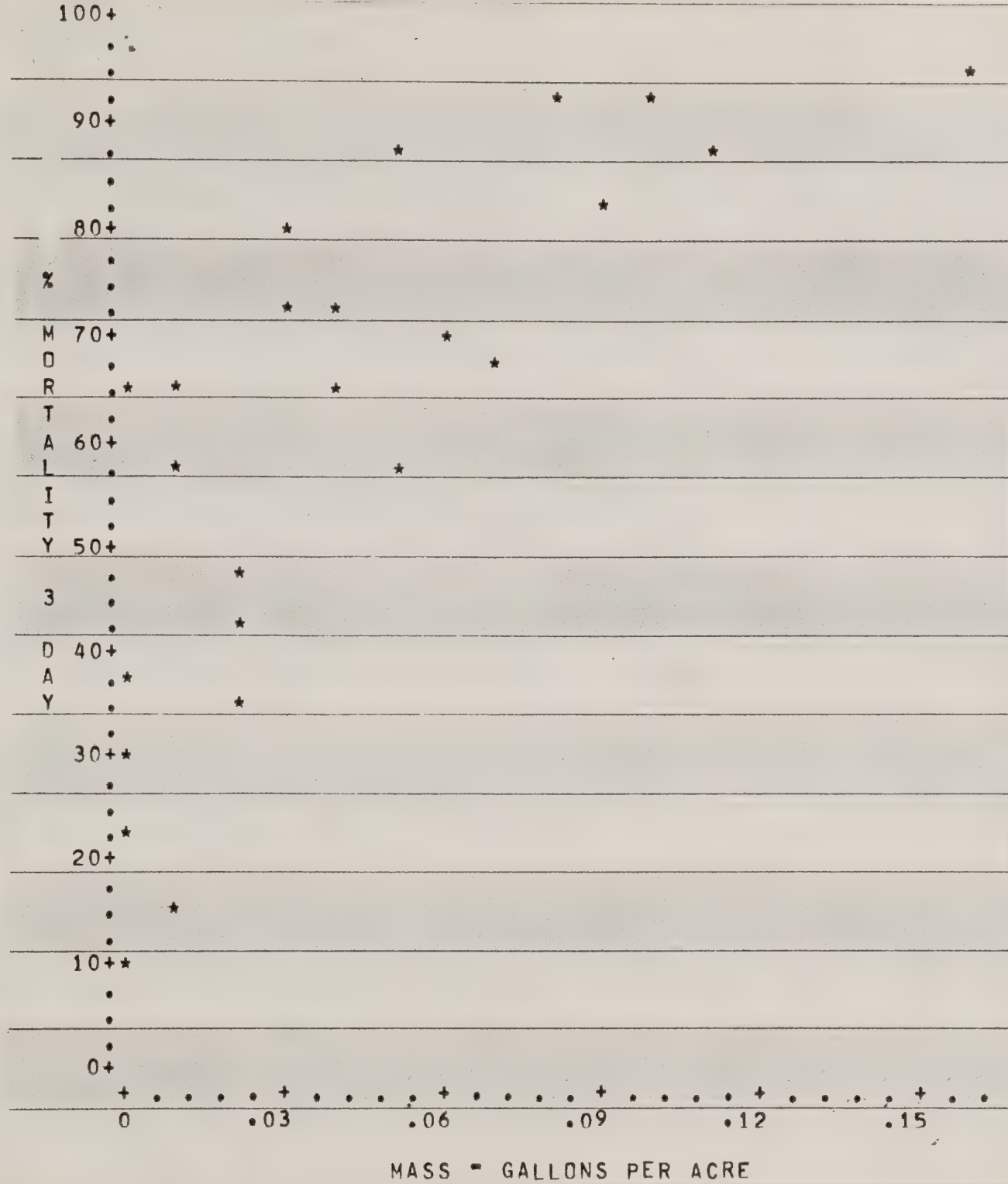
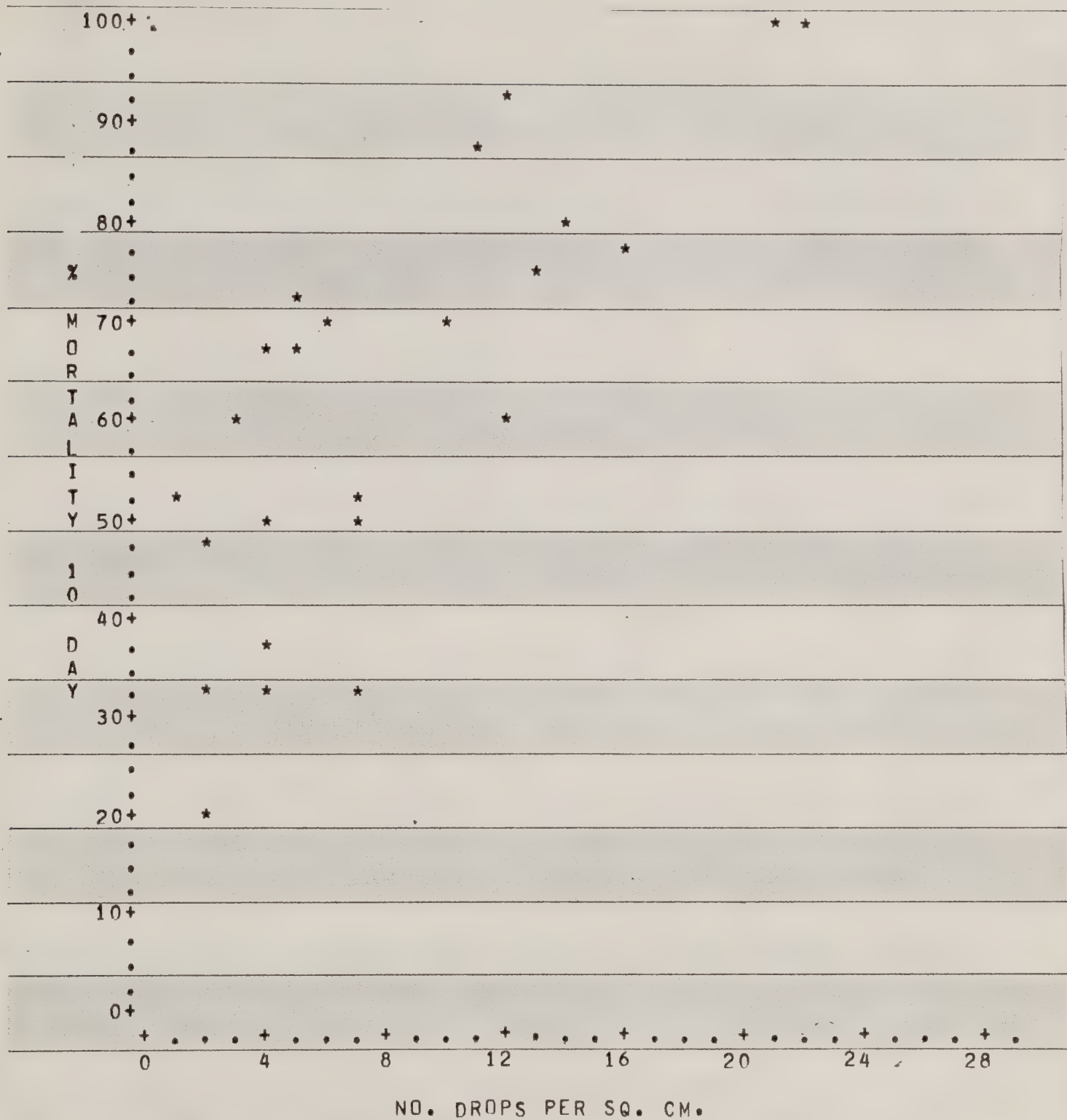


Figure 26. Block 7, Dylox, 1976 Montana Pilot Project
Mortality at 3 days vs. spray deposit in
gallons per acre.



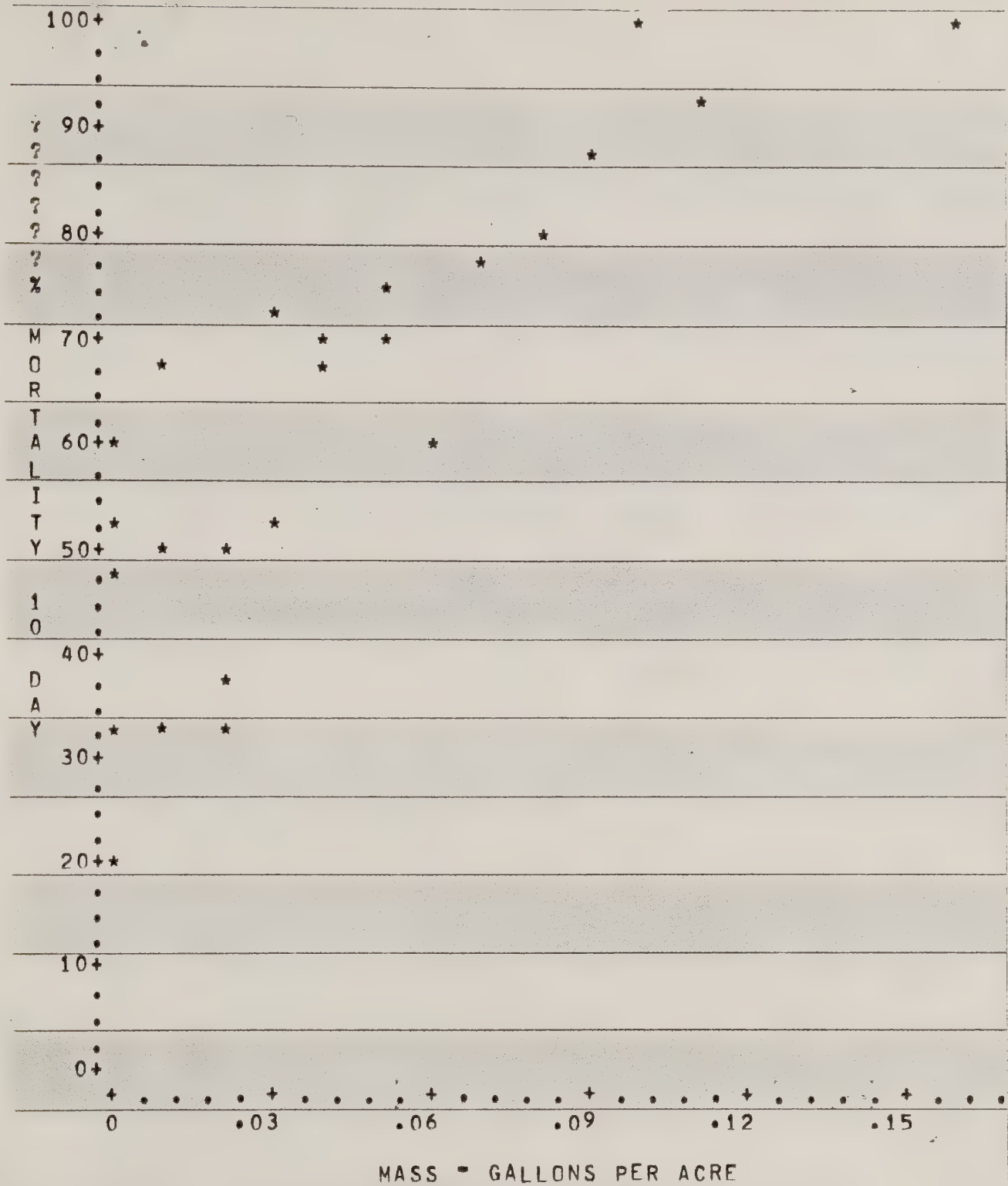


Figure 28. Block 7, Dylox, 1976 Montana Pilot Project Mortality at 10 days vs. spray deposit in gallons per acre.

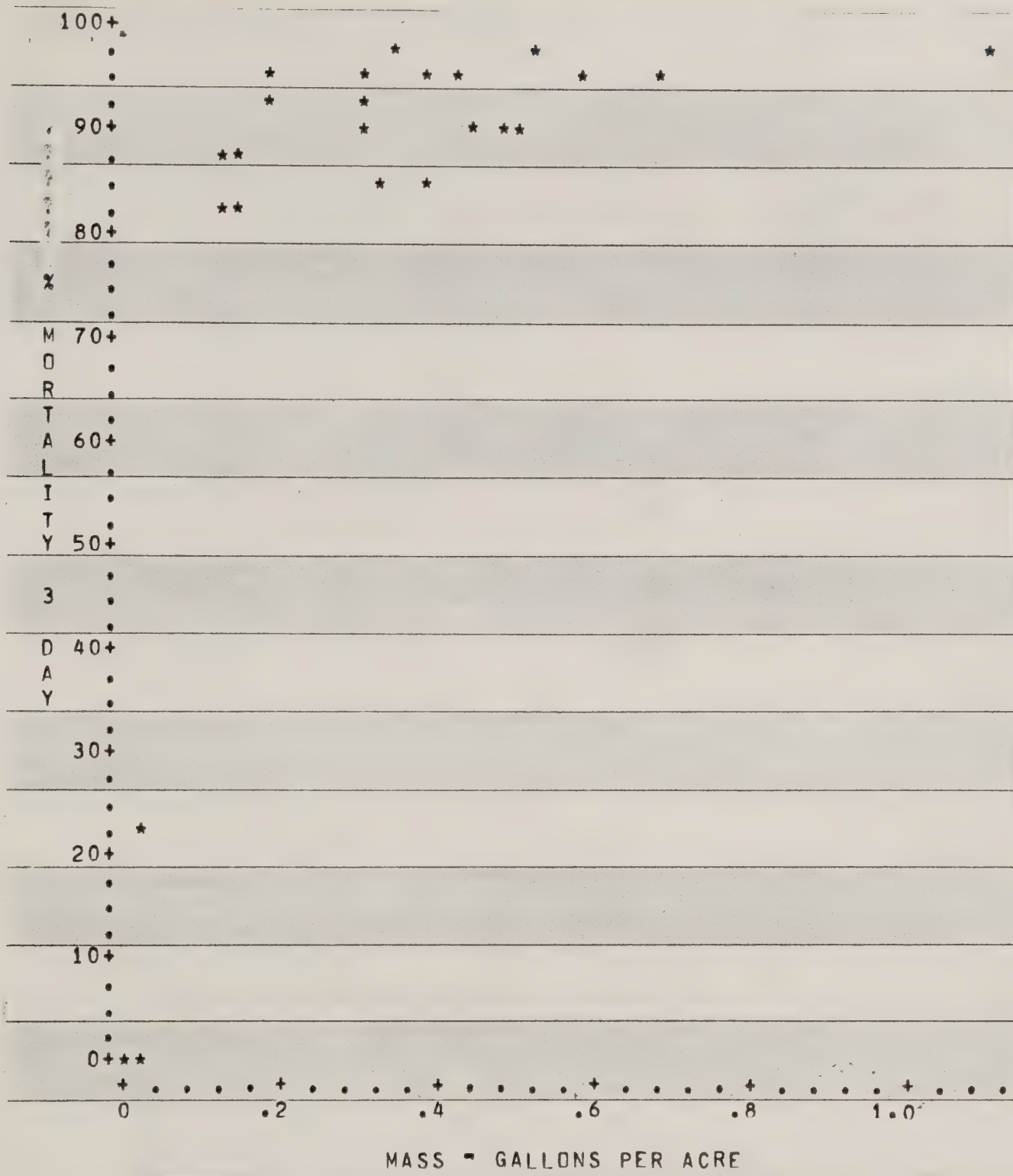


Figure 29. Block 8, Orthene, 1976 Montana Pilot Project Mortality at 3 days vs. spray deposit in gallons per acre.

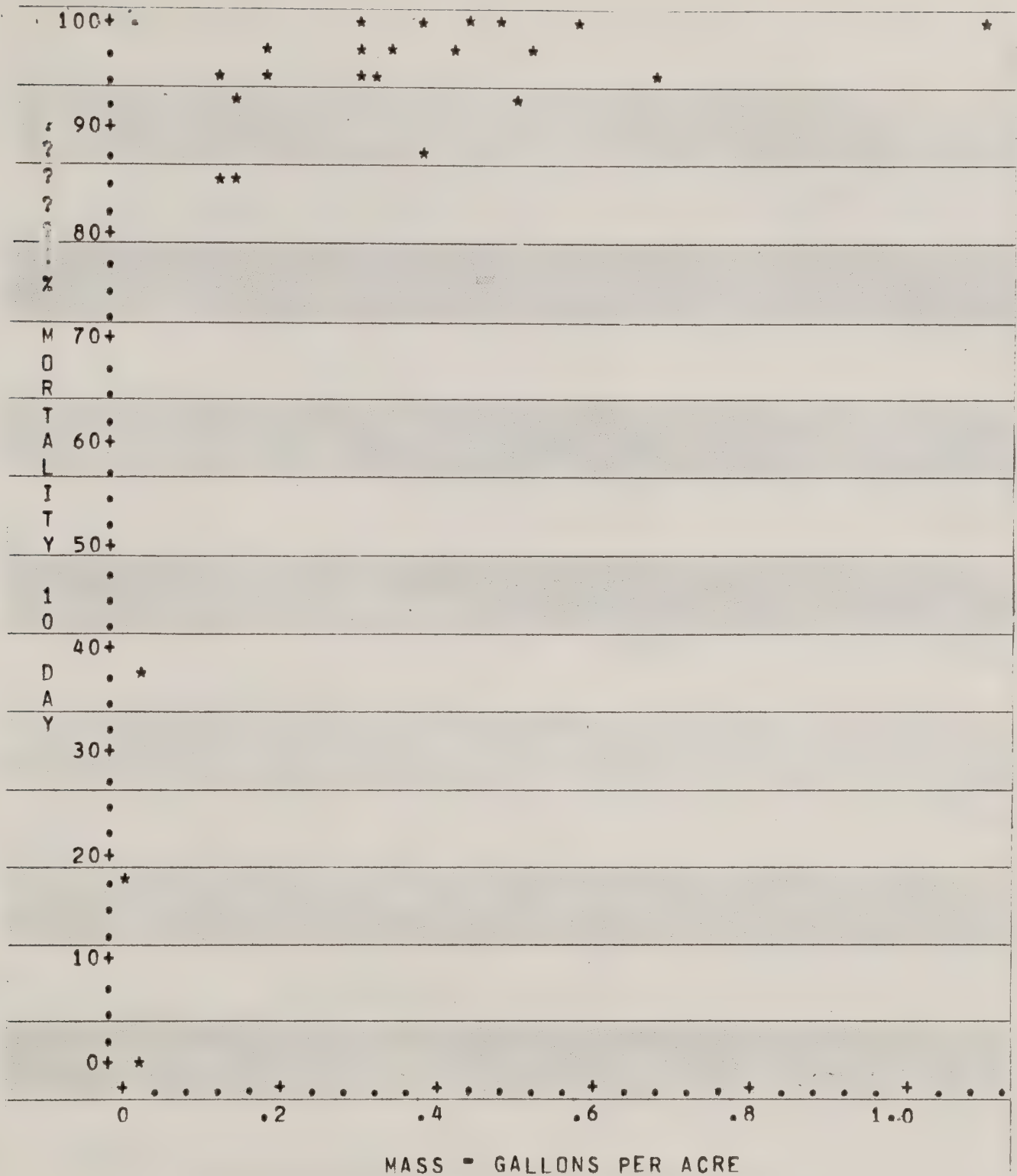


Figure 30. Block 8, Orthene, Montana 1976 Pilot Project Mortality at 10 days vs. spray deposit in gallons per acre.

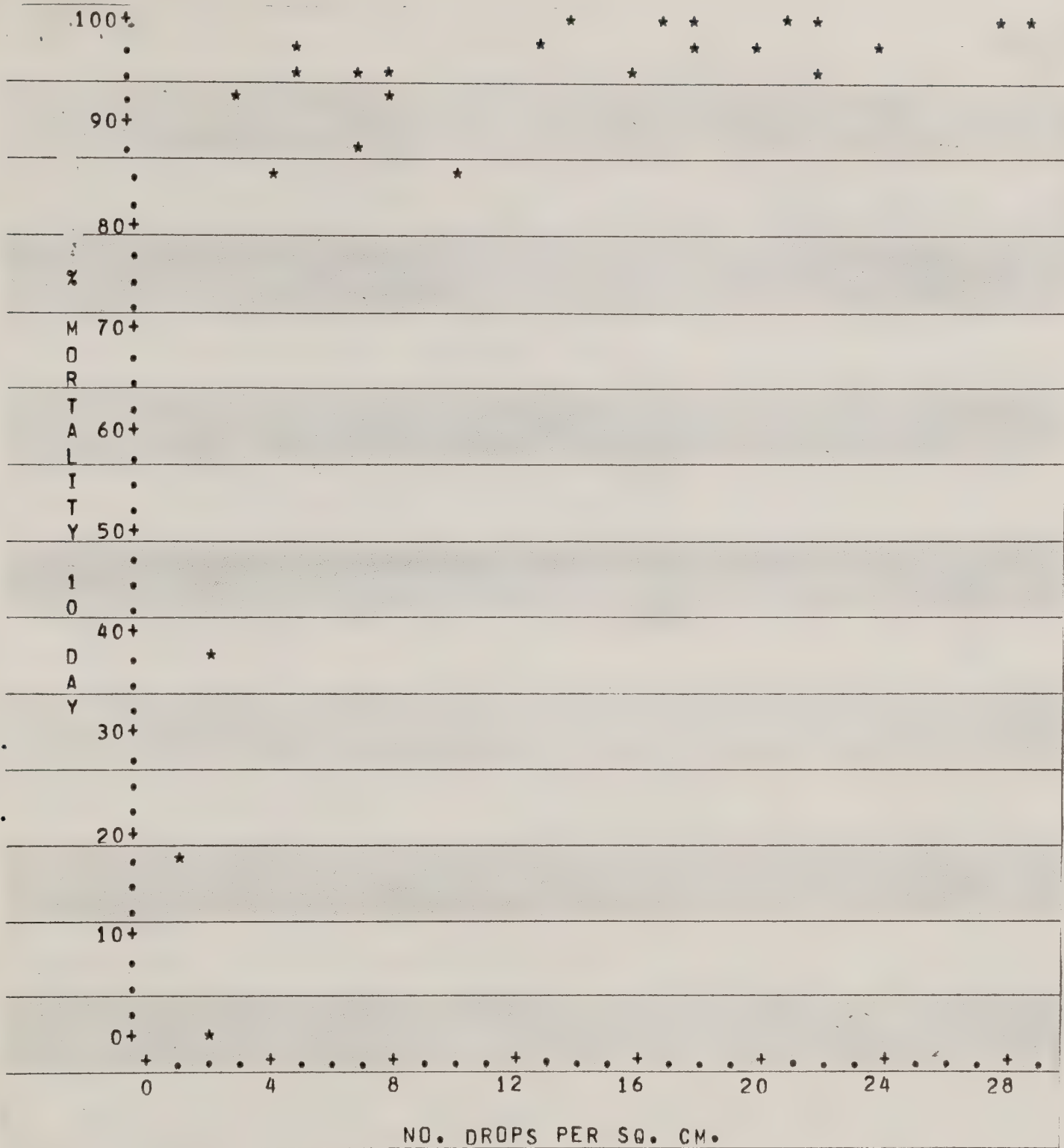


Figure 31. Block 8, Orthene, 1976 Montana Pilot Project Mortality at 10 days vs. spray deposit in number of drops/cm².

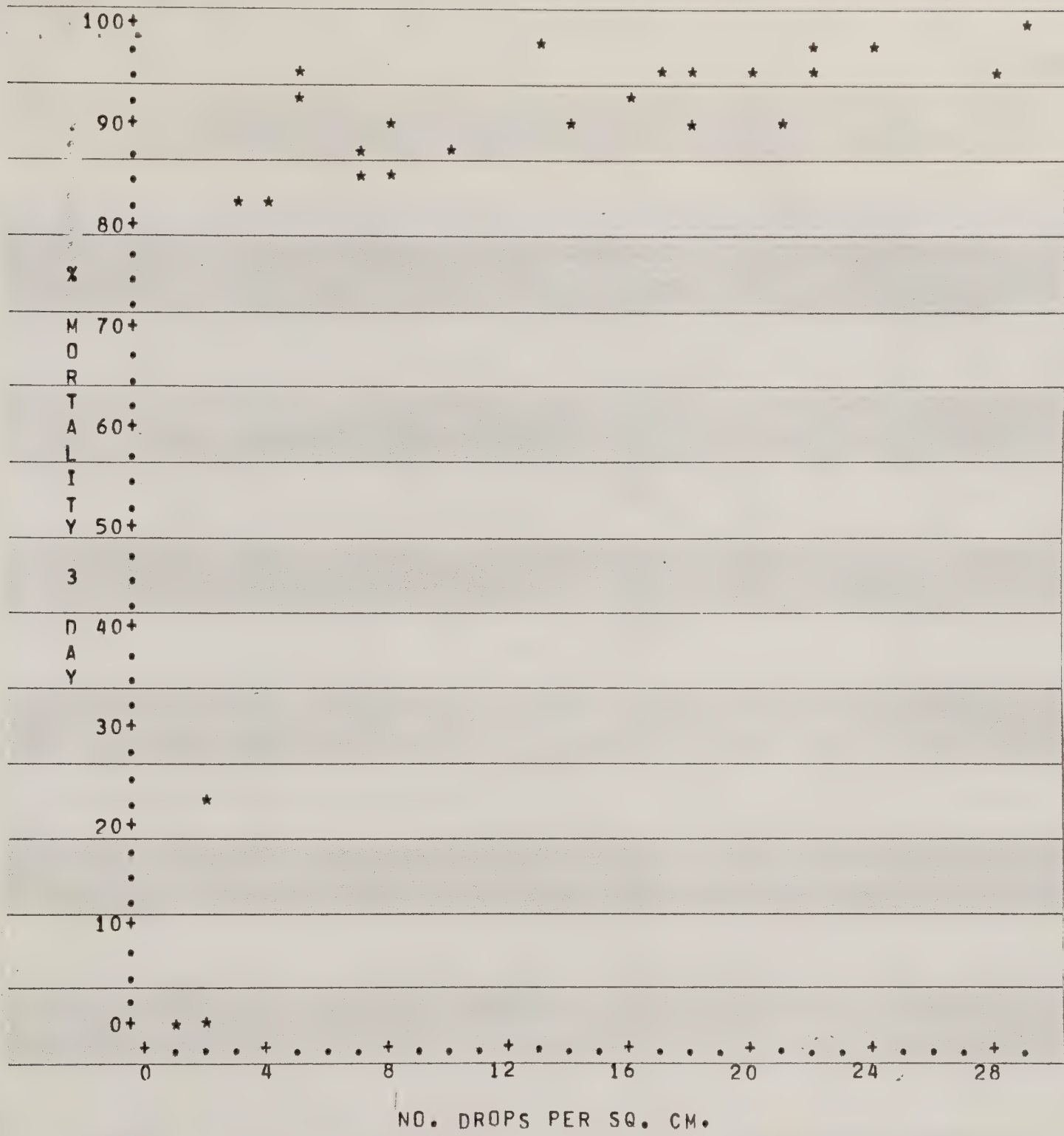


Figure 32. Block 8, Orthene, 1976 Montana Pilot Project Mortality at 3 days vs. spray deposit in number of drops/cm².

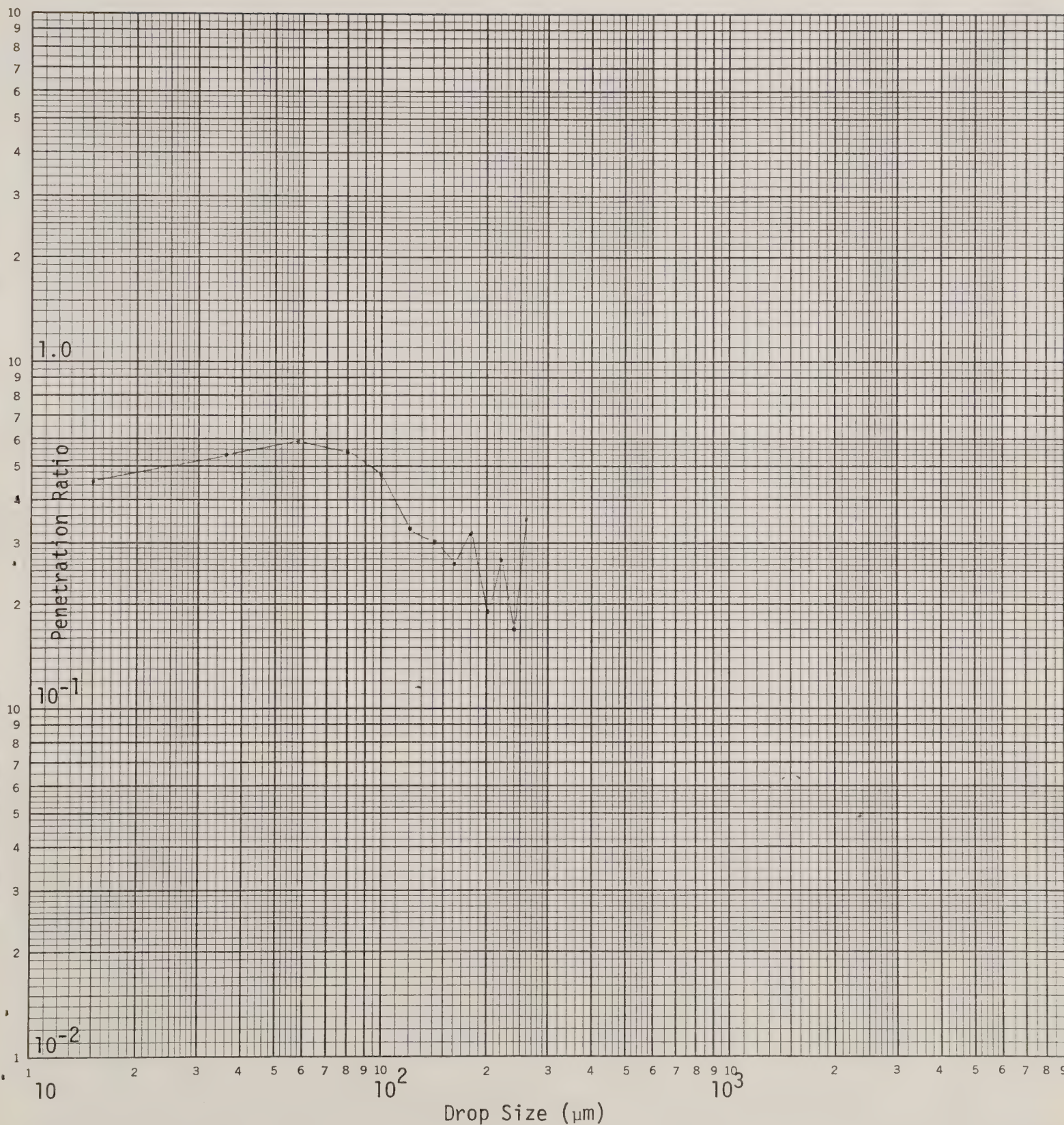


Figure 33 Block 1, Dylox, 1976 Montana Pilot Project, Canopy penetration
Penetration ratio = drops under trees vs. drops in open as a
function of drop size.

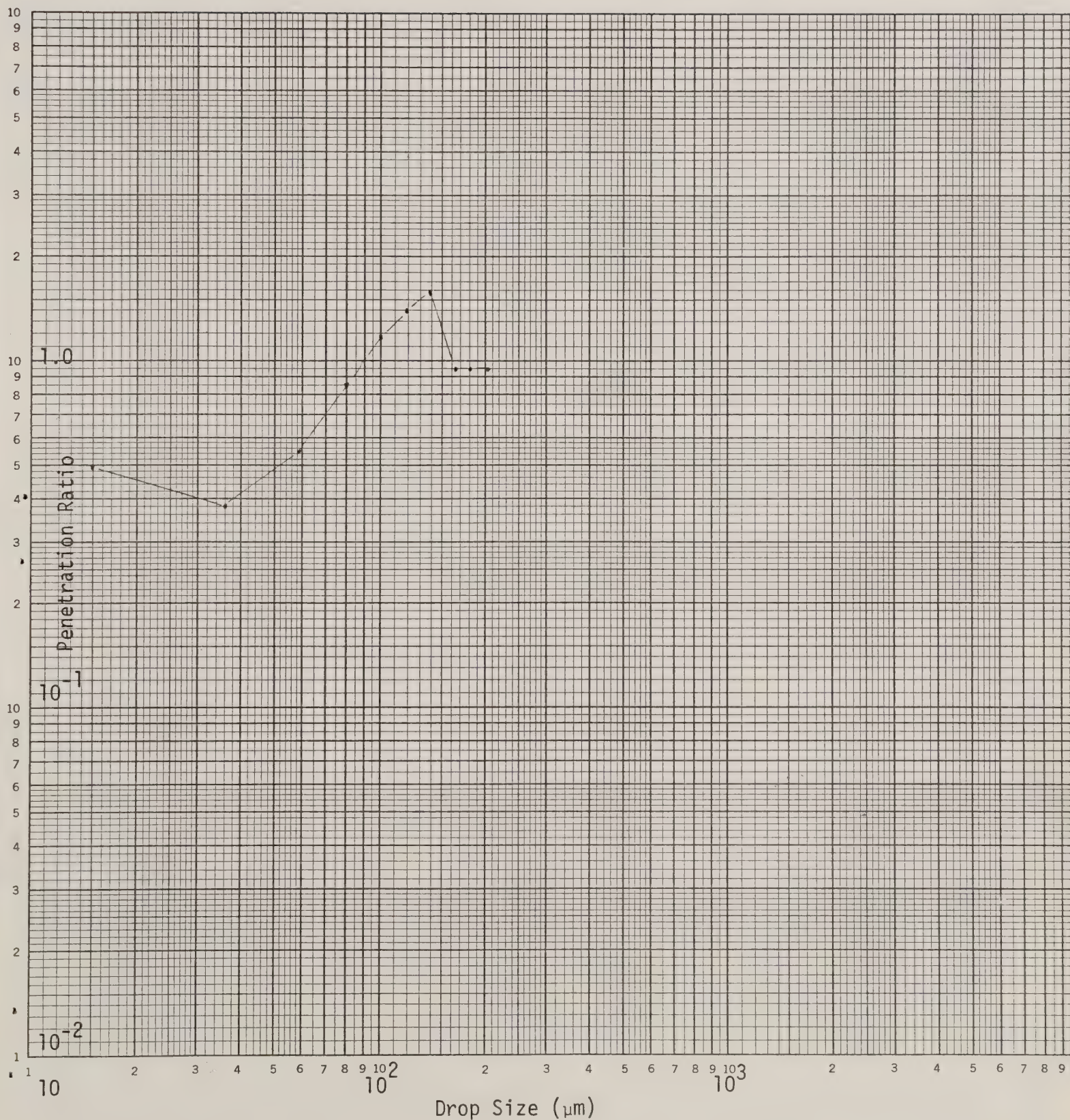


Figure 34 Block 2, Dylox, 1976 Montana Pilot Project, Canopy Penetration
 Penetration ratio = drops under trees vs. drops in open as a
 function of drop size.

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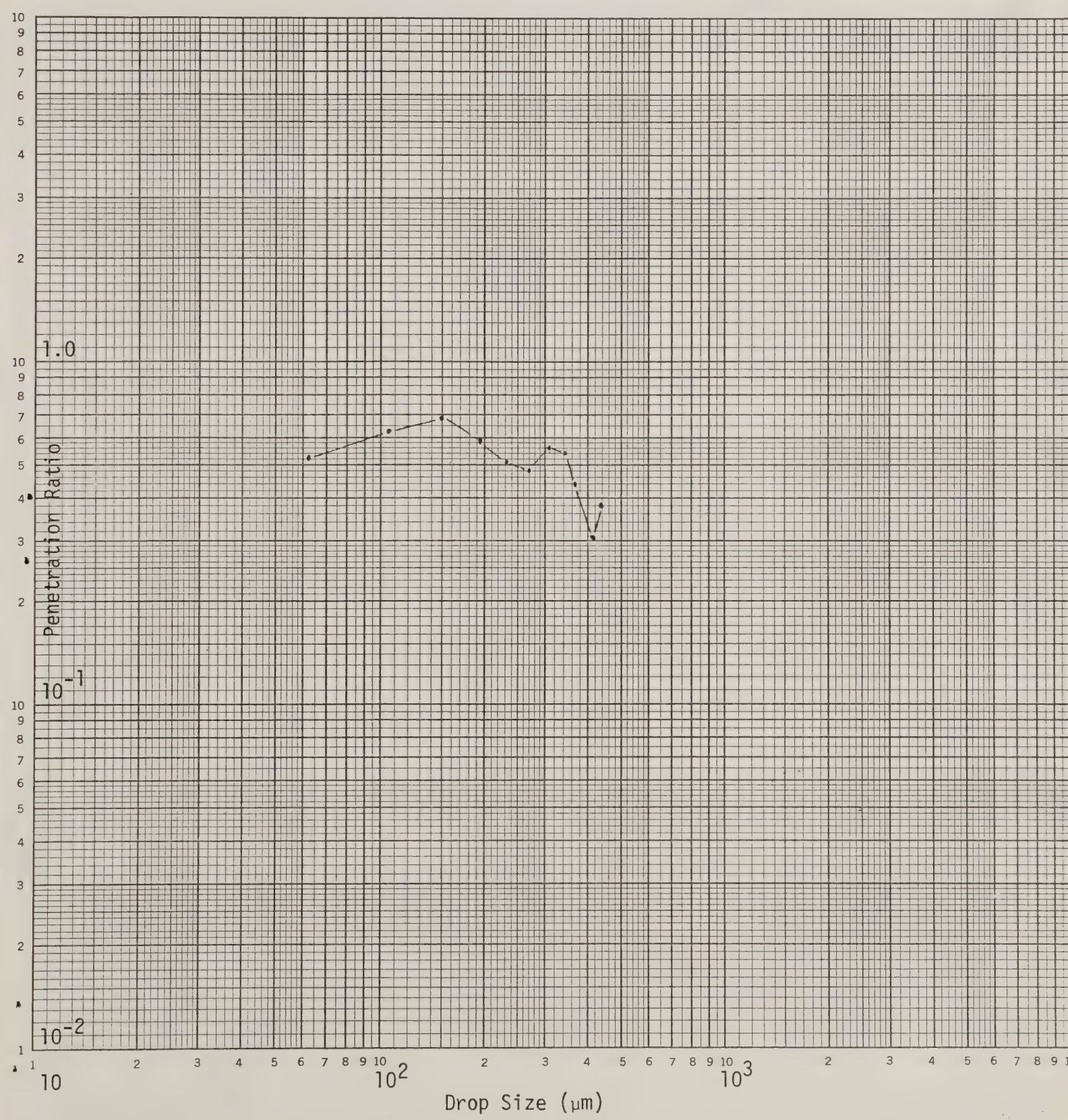


Figure 35 Block 3, Orthene, 1976 Montana Pilot Project, Canopy Penetration
Penetration ratio = drops under trees vs. drops in open as a
function of drop size.

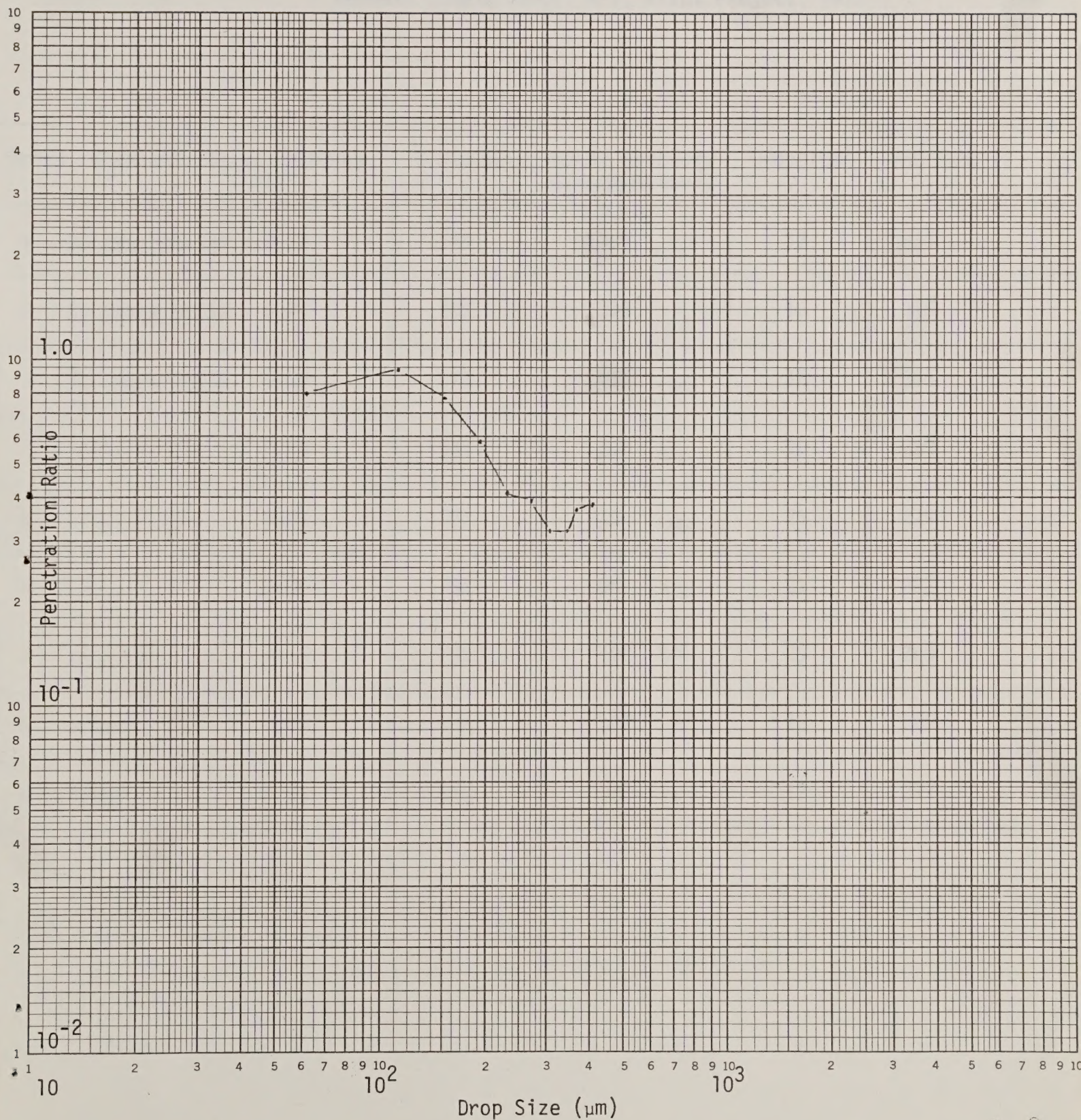


Figure 36 Block 8, Orthene, 1976 Montana Pilot Project, Canopy penetration. Penetration ratio = drops under trees vs. drops in open as a function of drop size.

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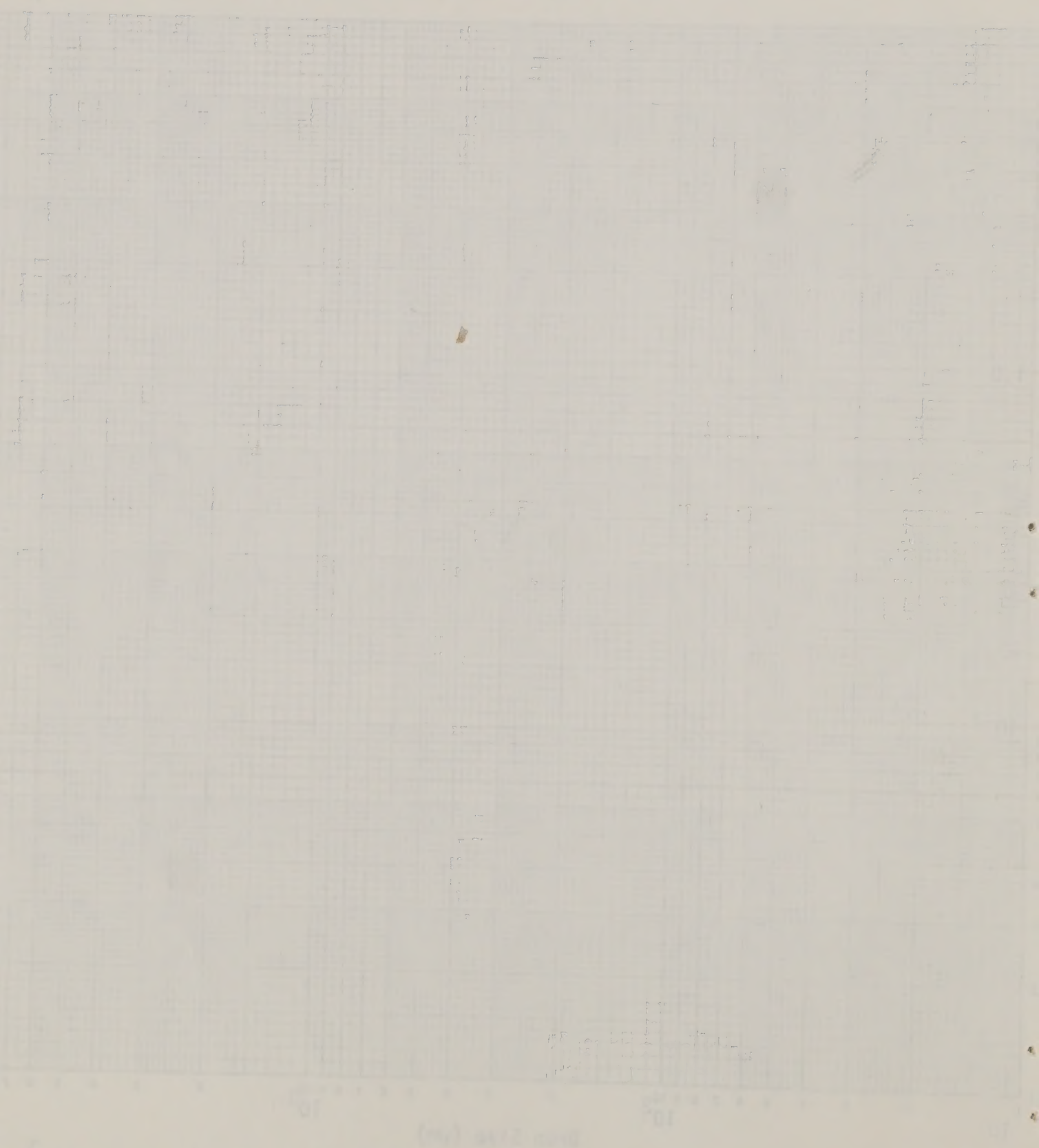


Figure 12. Block 4, Arizona, 1975. (Arizona State University, 1975).
Photocopy of original. Original is in the possession of the Arizona State University Library.

Table 15 Spray Deposit Summary of the Data Collected
Beneath Sample Trees, R-1, Pilot Project, 1975

Trial	Chemical	Spray Recovery (GPA)	% Recovery	Spray Recovery (Grams/meter ²)	Drops/cm ²	VMD (μm)
1	<u>B. thurgiensis</u>	0.38	19%	107 62/A 51	13	334
2	<u>B. thurgiensis</u>	0.76	38%	211 103	13	316
3	<u>B. thurgiensis</u>	0.74	37%	191 100	18	306
4	Sevin 4 Oil	0.12	24%	30 14	10	223
5	Sevin 4 Oil	0.43	86%	19 46	25	279
6	Sevin 4 Oil	0.38	76%	94 15	21	282
7	Dylox	0.74	74%	198 115	29	269
8	Dylox	0.43	43%	132 66	13	288
9	Dylox	0.51	51%	132 77	17	277



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Table 1. Group specific summary of the data set
 (Source: Group's report, 10/1/1992)

Group	Summary	Group	Summary	Group	Summary
1	0.25	10	0.25	19	0.25
2	0.25	11	0.25	20	0.25
3	0.25	12	0.25	21	0.25
4	0.25	13	0.25	22	0.25
5	0.25	14	0.25	23	0.25
6	0.25	15	0.25	24	0.25
7	0.25	16	0.25	25	0.25
8	0.25	17	0.25	26	0.25
9	0.25	18	0.25	27	0.25
10	0.25	19	0.25	28	0.25
11	0.25	20	0.25	29	0.25
12	0.25	21	0.25	30	0.25
13	0.25	22	0.25	31	0.25
14	0.25	23	0.25	32	0.25
15	0.25	24	0.25	33	0.25
16	0.25	25	0.25	34	0.25
17	0.25	26	0.25	35	0.25
18	0.25	27	0.25	36	0.25
19	0.25	28	0.25	37	0.25
20	0.25	29	0.25	38	0.25
21	0.25	30	0.25	39	0.25
22	0.25	31	0.25	40	0.25
23	0.25	32	0.25	41	0.25
24	0.25	33	0.25	42	0.25
25	0.25	34	0.25	43	0.25
26	0.25	35	0.25	44	0.25
27	0.25	36	0.25	45	0.25
28	0.25	37	0.25	46	0.25
29	0.25	38	0.25	47	0.25
30	0.25	39	0.25	48	0.25
31	0.25	40	0.25	49	0.25
32	0.25	41	0.25	50	0.25
33	0.25	42	0.25	51	0.25
34	0.25	43	0.25	52	0.25
35	0.25	44	0.25	53	0.25
36	0.25	45	0.25	54	0.25
37	0.25	46	0.25	55	0.25
38	0.25	47	0.25	56	0.25
39	0.25	48	0.25	57	0.25
40	0.25	49	0.25	58	0.25
41	0.25	50	0.25	59	0.25
42	0.25	51	0.25	60	0.25
43	0.25	52	0.25	61	0.25
44	0.25	53	0.25	62	0.25
45	0.25	54	0.25	63	0.25
46	0.25	55	0.25	64	0.25
47	0.25	56	0.25	65	0.25
48	0.25	57	0.25	66	0.25
49	0.25	58	0.25	67	0.25
50	0.25	59	0.25	68	0.25
51	0.25	60	0.25	69	0.25
52	0.25	61	0.25	70	0.25
53	0.25	62	0.25	71	0.25
54	0.25	63	0.25	72	0.25
55	0.25	64	0.25	73	0.25
56	0.25	65	0.25	74	0.25
57	0.25	66	0.25	75	0.25
58	0.25	67	0.25	76	0.25
59	0.25	68	0.25	77	0.25
60	0.25	69	0.25	78	0.25
61	0.25	70	0.25	79	0.25
62	0.25	71	0.25	80	0.25
63	0.25	72	0.25	81	0.25
64	0.25	73	0.25	82	0.25
65	0.25	74	0.25	83	0.25
66	0.25	75	0.25	84	0.25
67	0.25	76	0.25	85	0.25
68	0.25	77	0.25	86	0.25
69	0.25	78	0.25	87	0.25
70	0.25	79	0.25	88	0.25
71	0.25	80	0.25	89	0.25
72	0.25	81	0.25	90	0.25
73	0.25	82	0.25	91	0.25
74	0.25	83	0.25	92	0.25
75	0.25	84	0.25	93	0.25
76	0.25	85	0.25	94	0.25
77	0.25	86	0.25	95	0.25
78	0.25	87	0.25	96	0.25
79	0.25	88	0.25	97	0.25
80	0.25	89	0.25	98	0.25
81	0.25	90	0.25	99	0.25
82	0.25	91	0.25	100	0.25
83	0.25	92	0.25		
84	0.25	93	0.25		
85	0.25	94	0.25		
86	0.25	95	0.25		
87	0.25	96	0.25		
88	0.25	97	0.25		
89	0.25	98	0.25		
90	0.25	99	0.25		
91	0.25	100	0.25		
92	0.25				
93	0.25				
94	0.25				
95	0.25				
96	0.25				
97	0.25				
98	0.25				
99	0.25				
100	0.25				